

SC-KD-05129

KD240 Drives Starter Kit Carrier Card

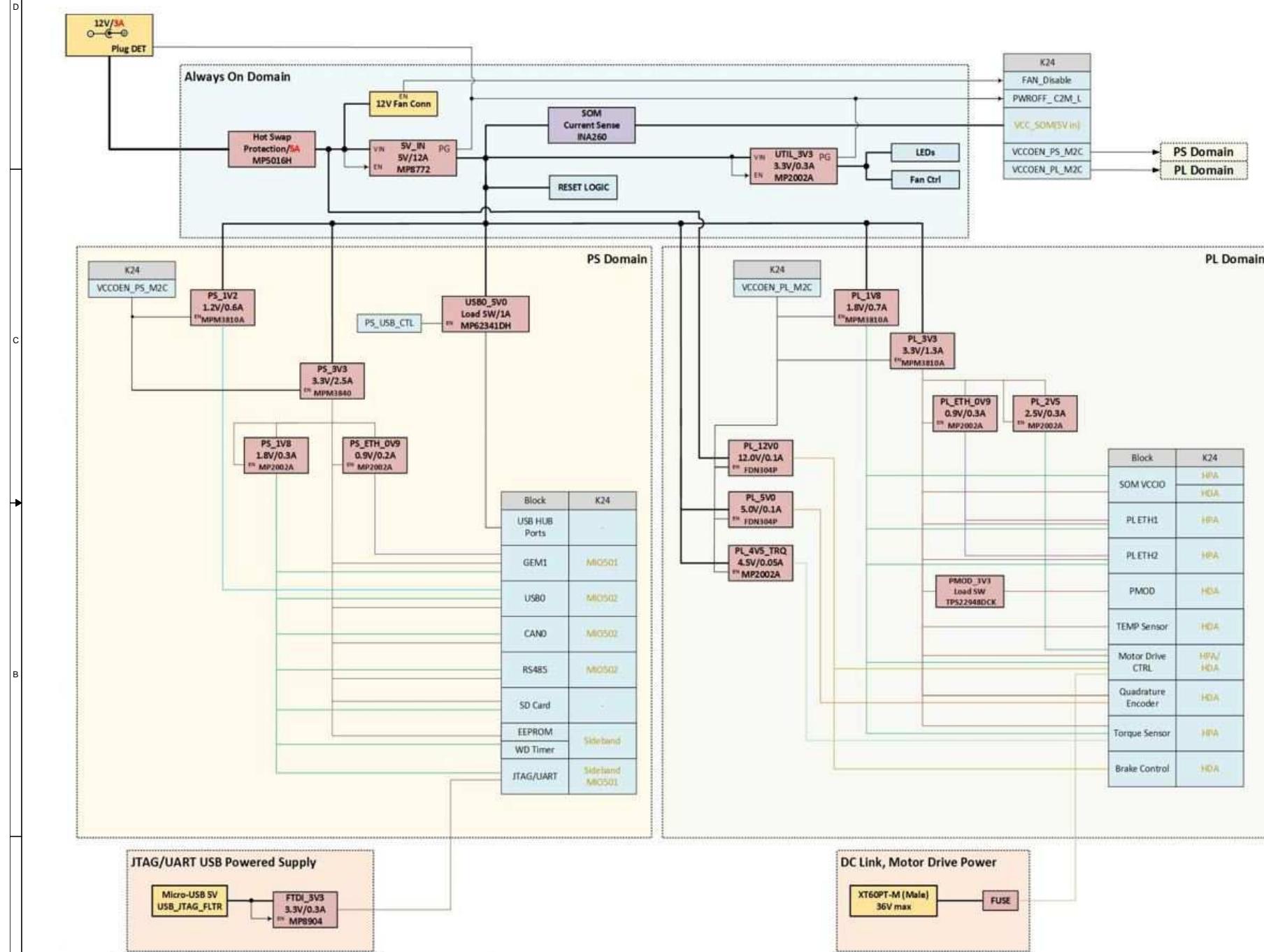
NOTICE: These schematics are made available for users who are working with this specific Xilinx board and should not be considered an optimal board design reference. This board was designed for evaluation purposes with components that are potentially more complex and costly than would be used in an end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

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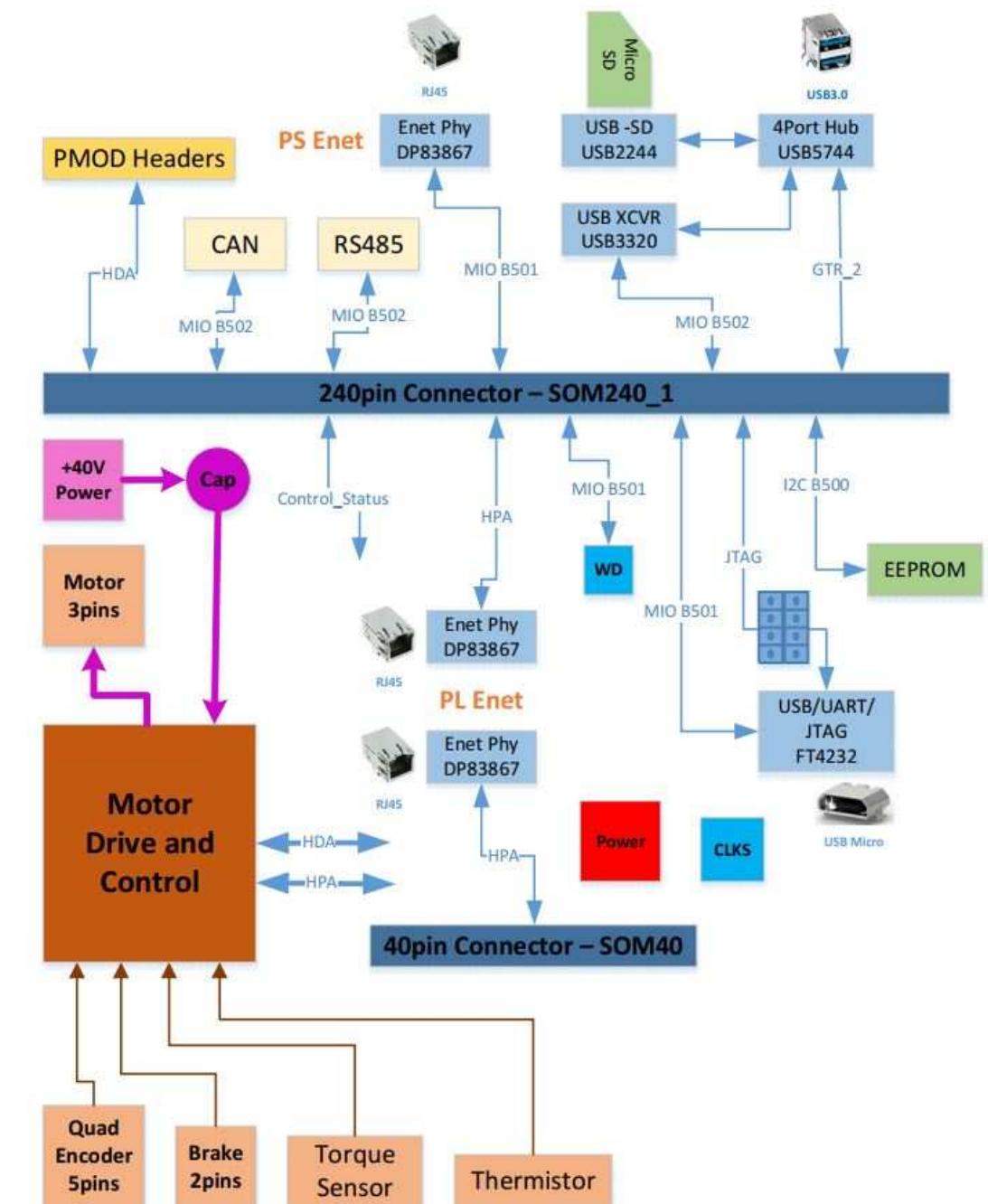
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POWER BLOCK DIAGRAM



PERIPHERAL BLOCK DIAGRAM



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2100 LOGIC DRIVE
SAN JOSE, CA 95124

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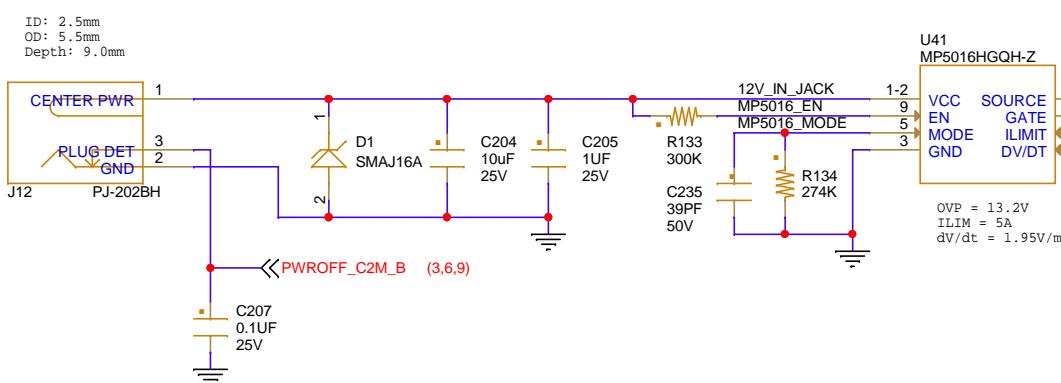
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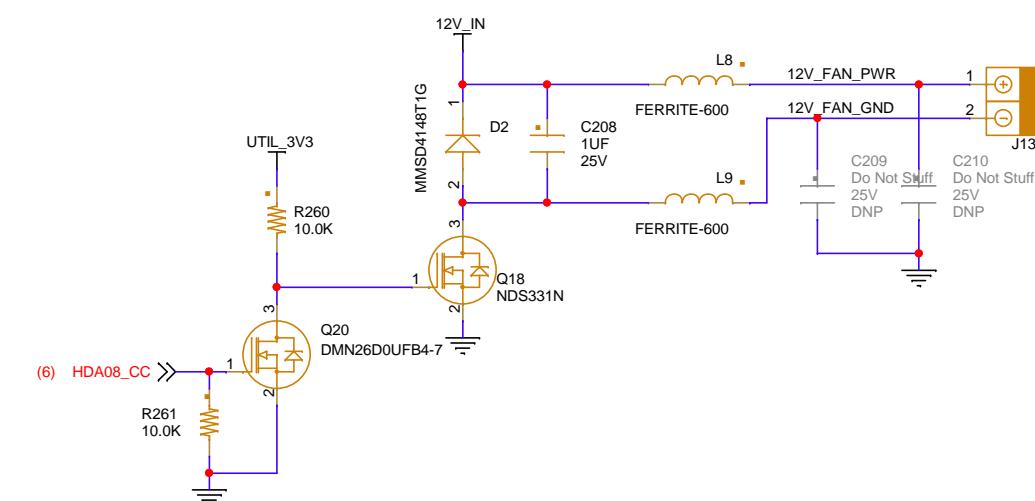
AMD

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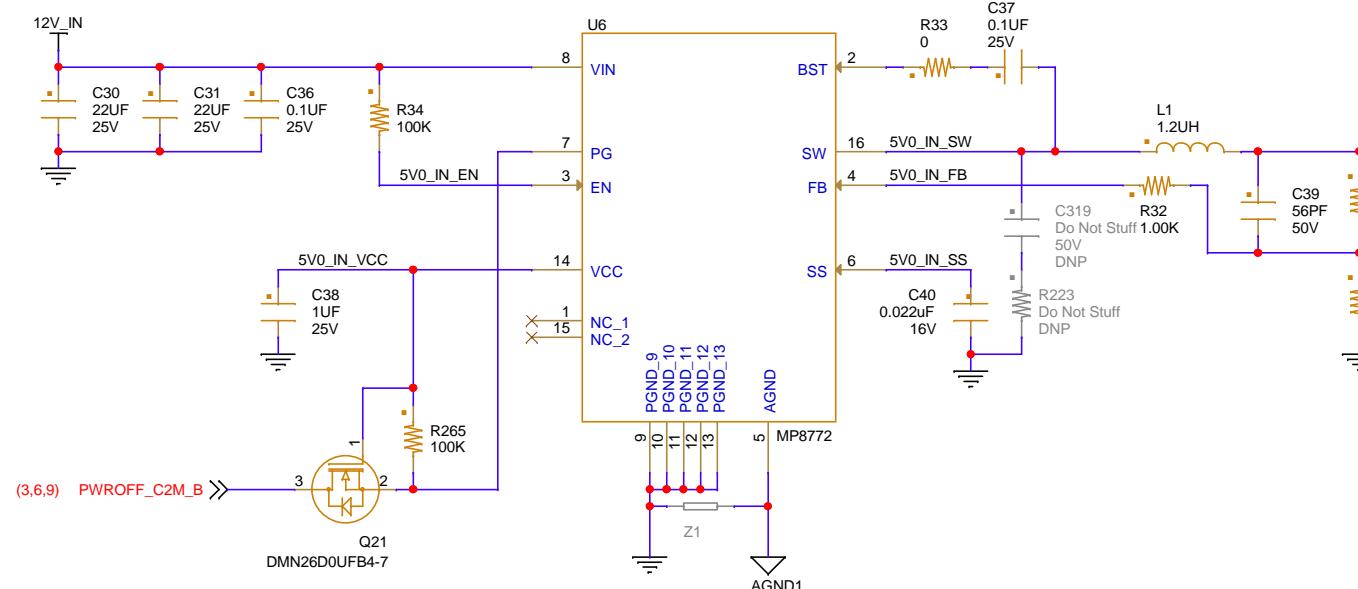
12V DC JACK



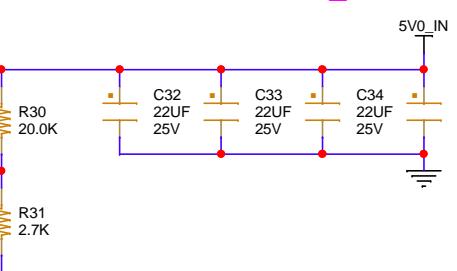
12V FAN HEADER



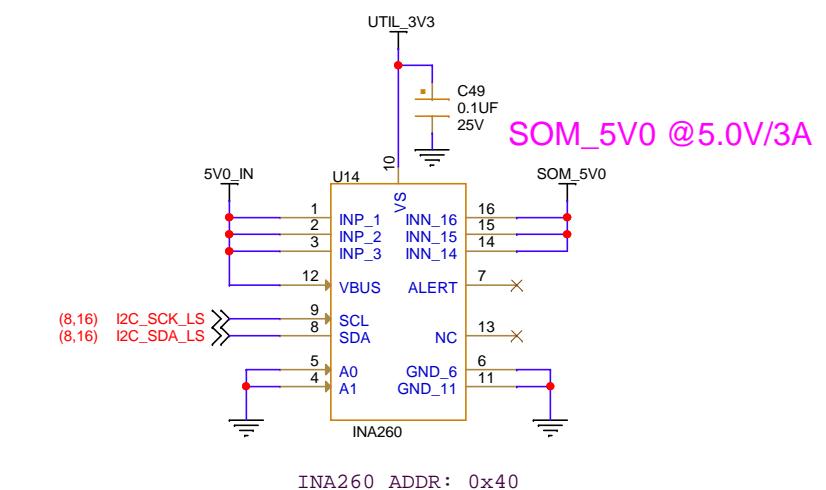
5V0_IN ALWAYS ON REGULATOR



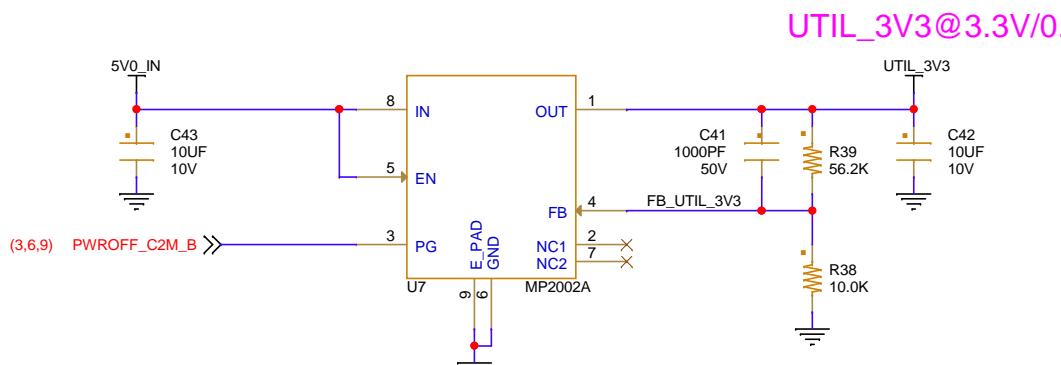
5V0_IN @5.0V/7.5A



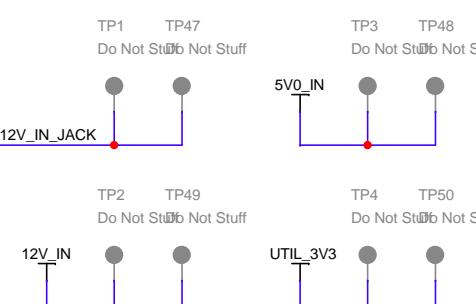
SOM_5V0 CURRENT MONITOR



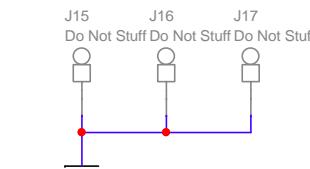
UTIL_3V3 ALWAYS ON REGULATOR



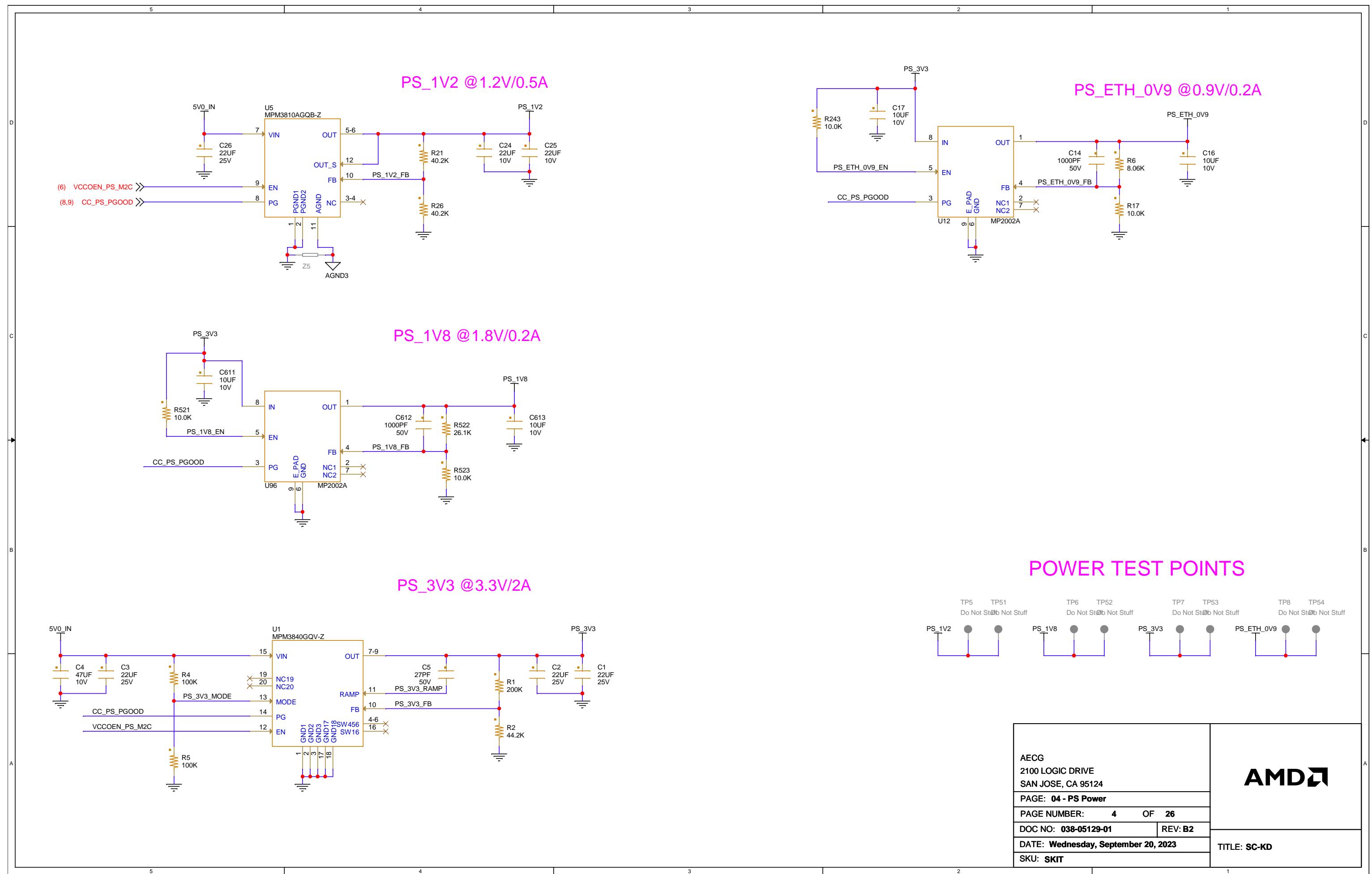
POWER TEST POINTS

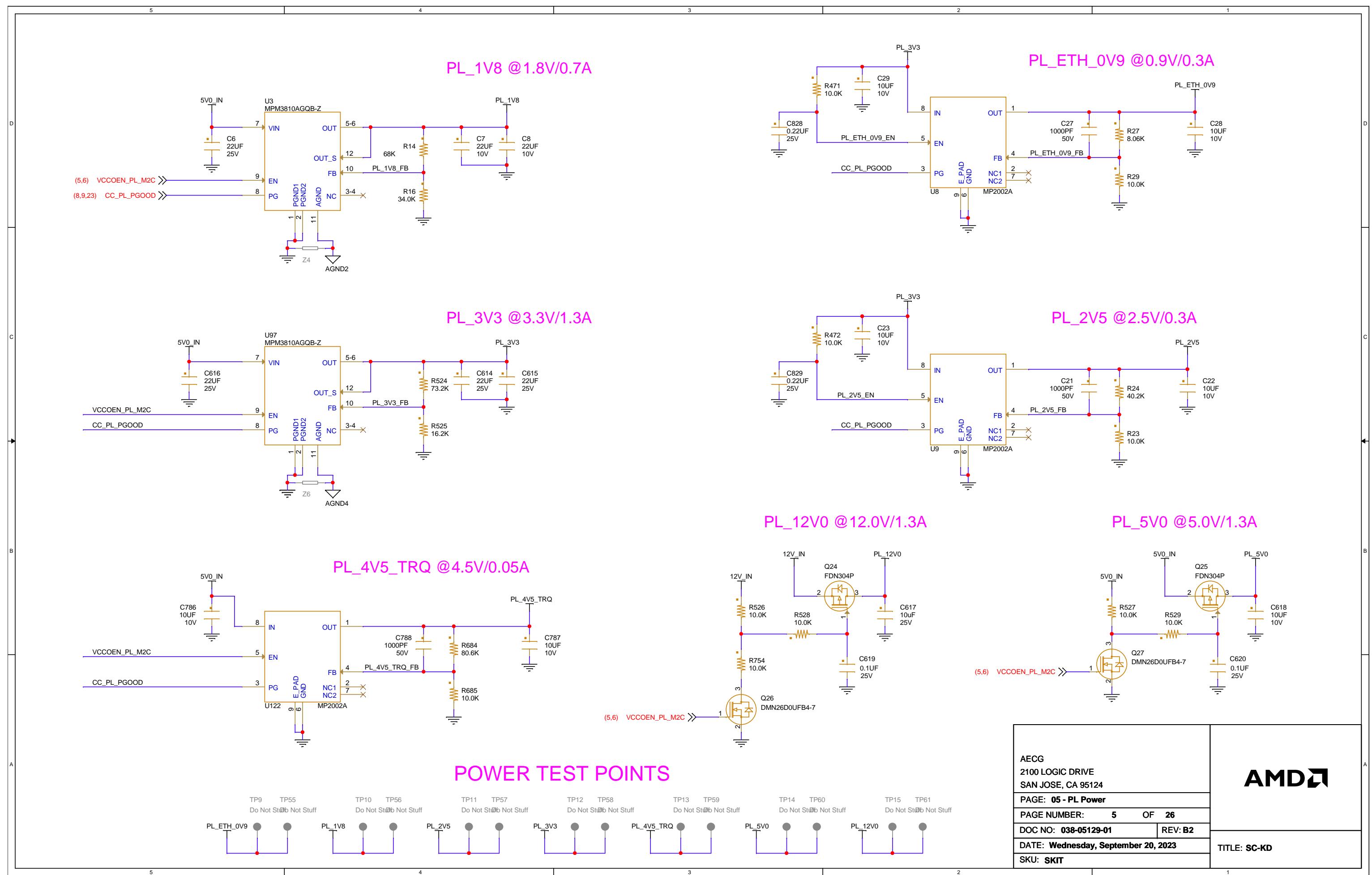


GROUND LOOPS

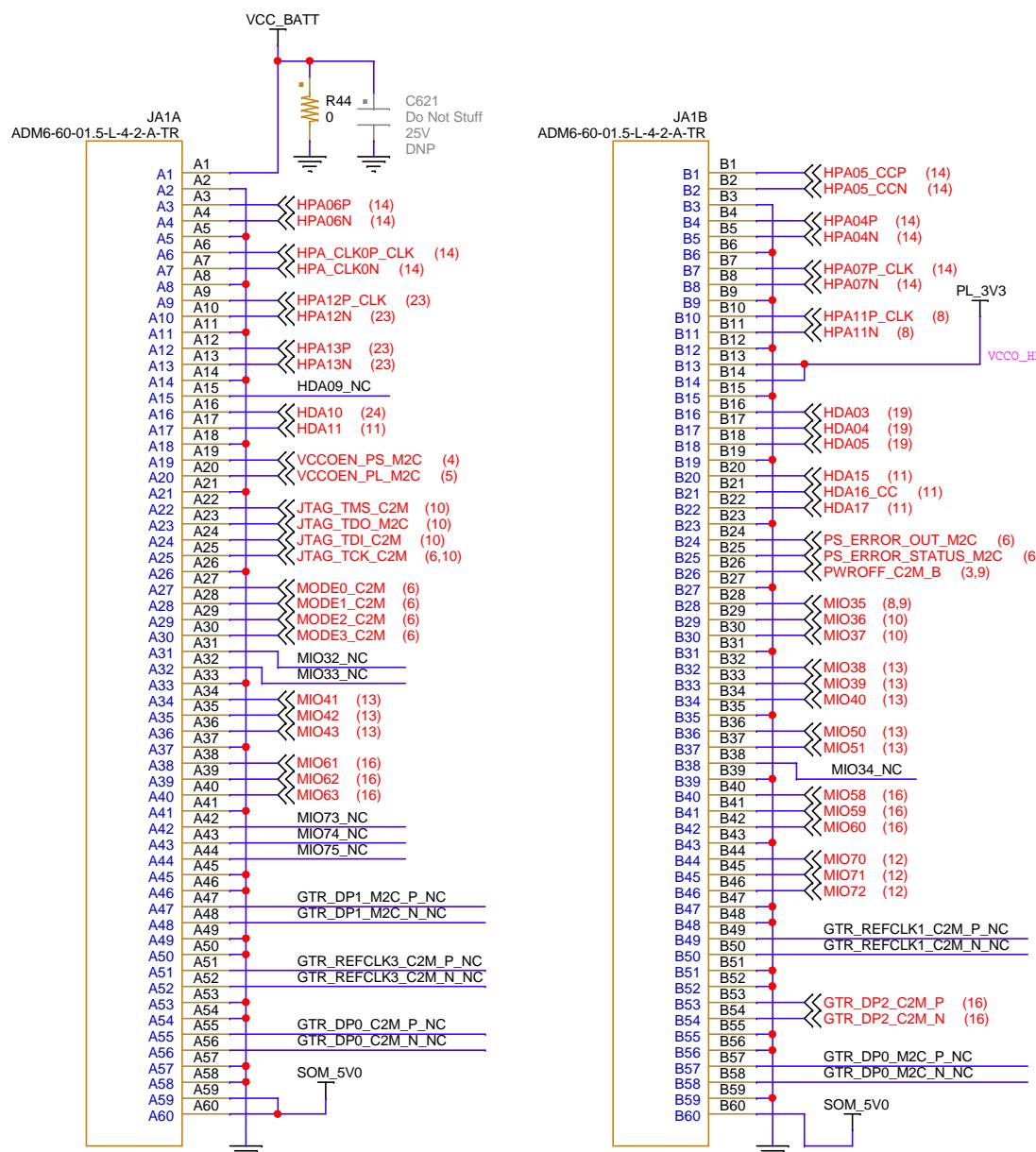


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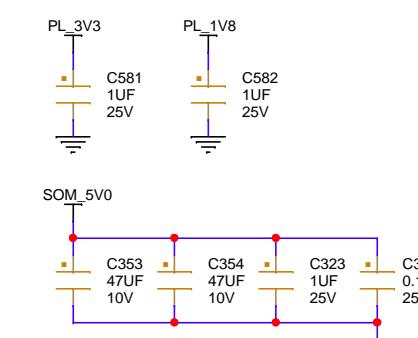




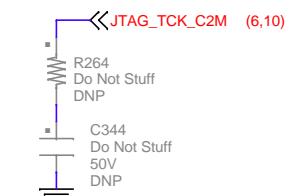
SOM240_1 CONNECTOR



Connector Power Decoupling

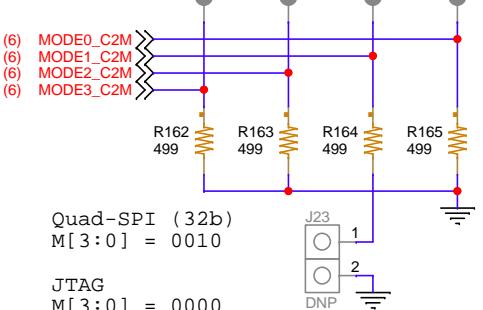


TCK TERM

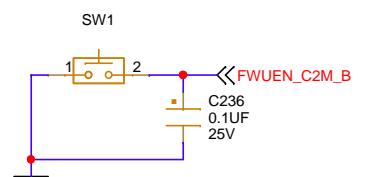


MODE PINS

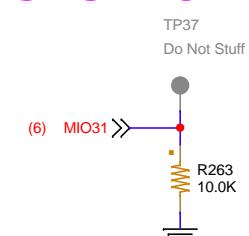
TP62, TP63, TP64, TP65
Do Not Stuff Do Not Stuff Do Not Stuff Do Not Stuff



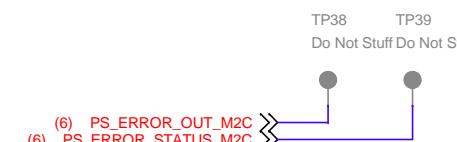
FWUEN BUTTON



SHUTDOWN



PS_ERROR_OUT/STATUS TEST POINTS



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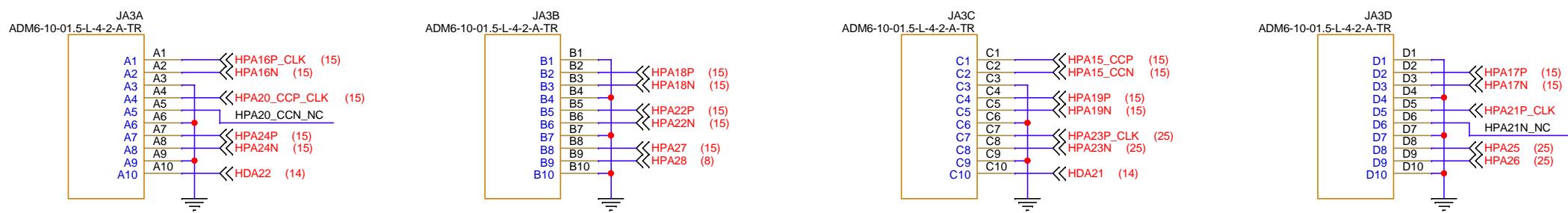
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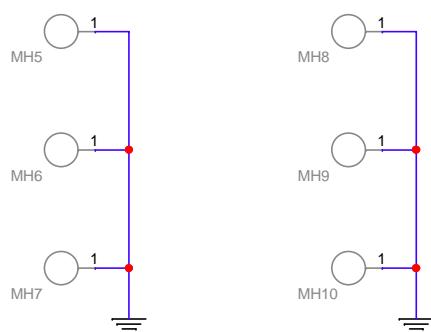
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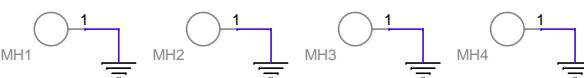
SOM40 CONNECTOR



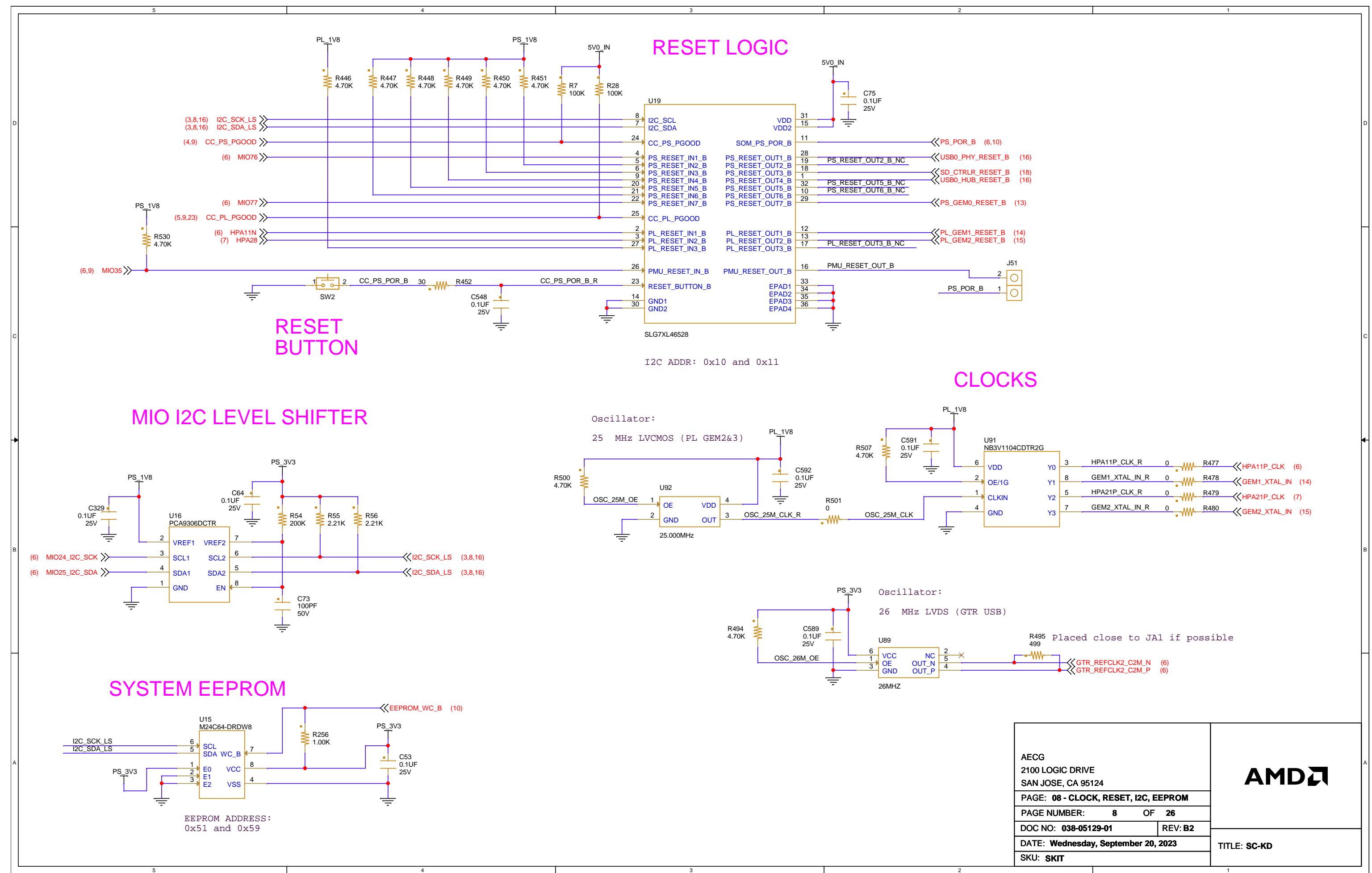
SOM STANDOFFS



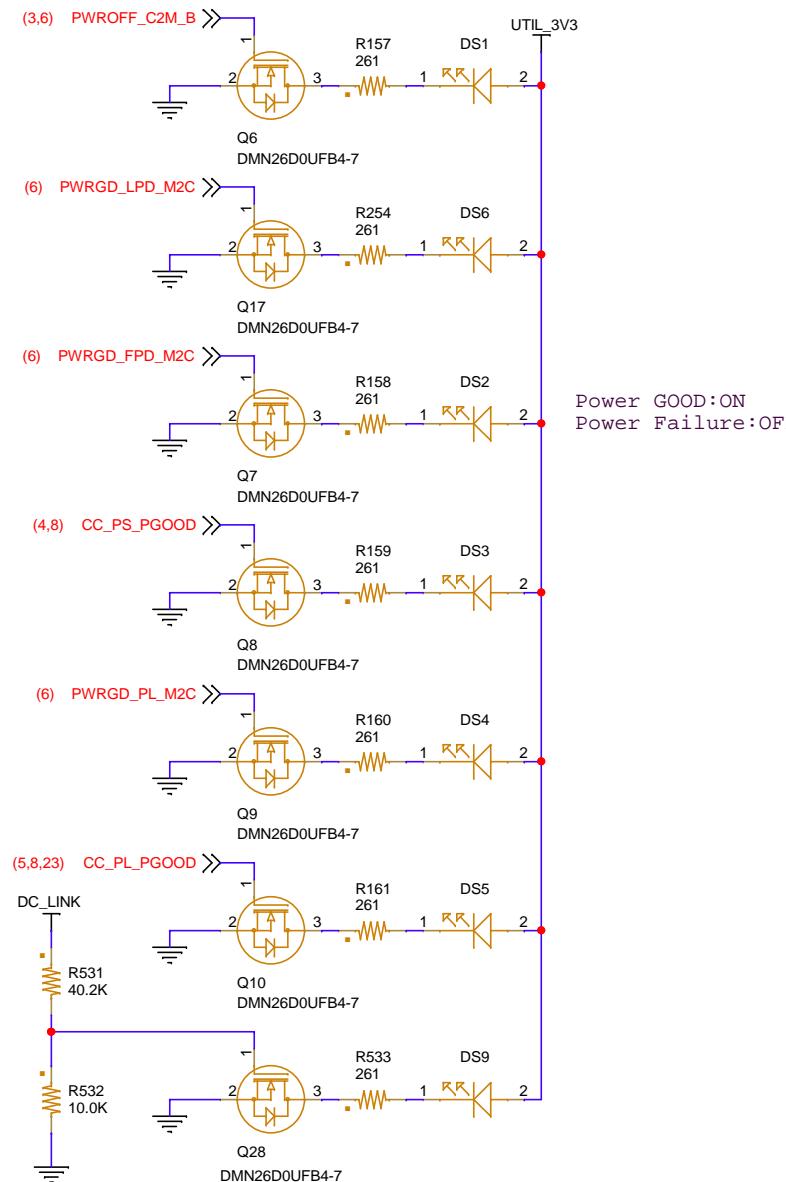
FOUR CORNER MOUNTING HOLES



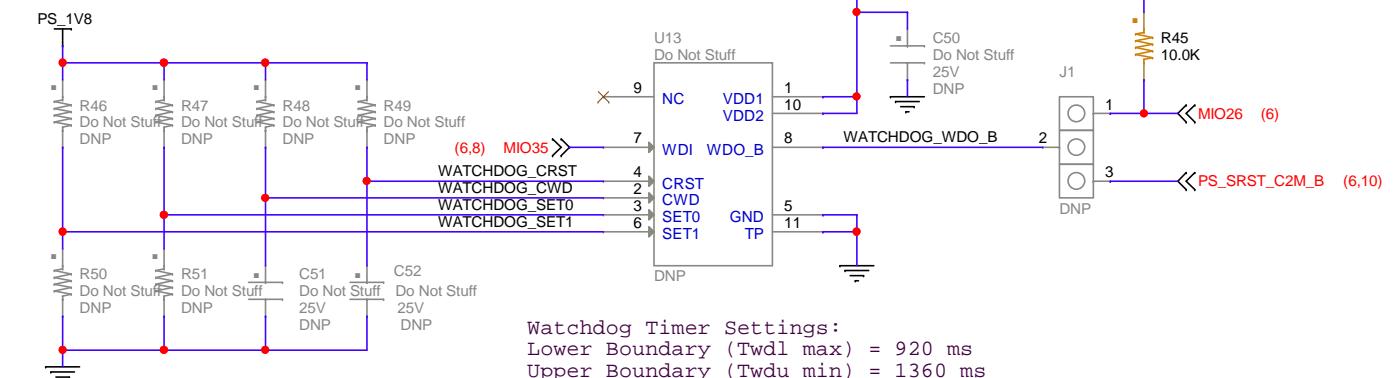
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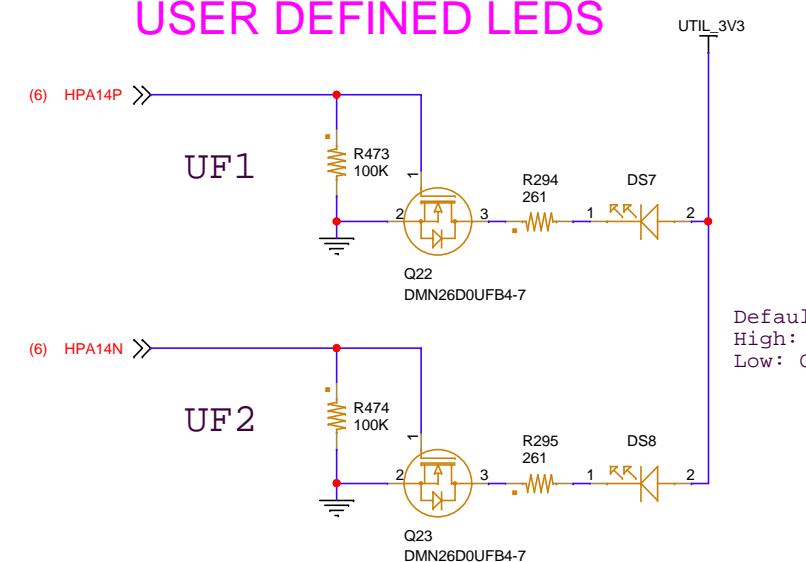
POWER STATUS LEDS



WATCHDOG TIMER



USER DEFINED LEDs

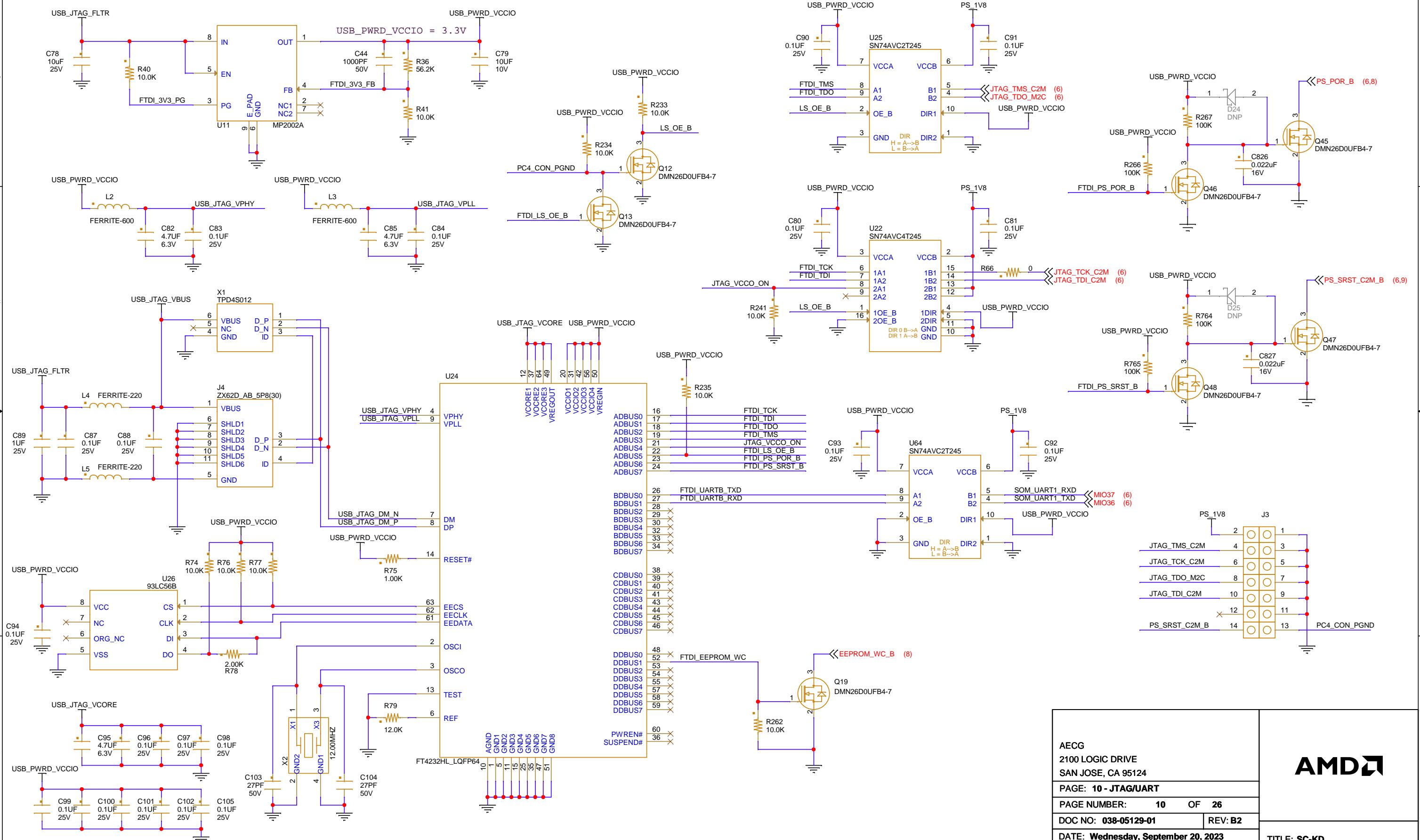


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FTDI JTAG/UART



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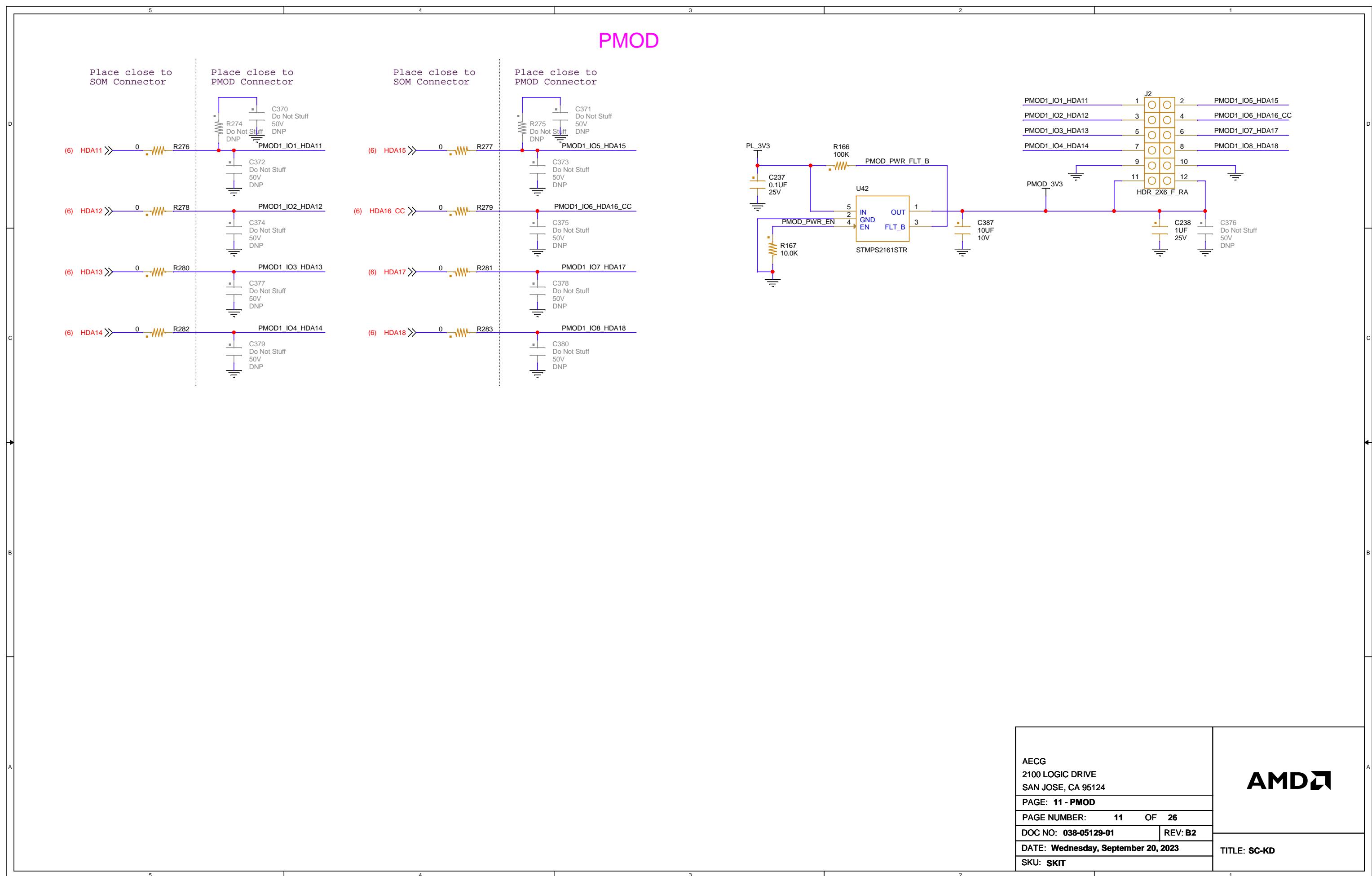
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PMOD



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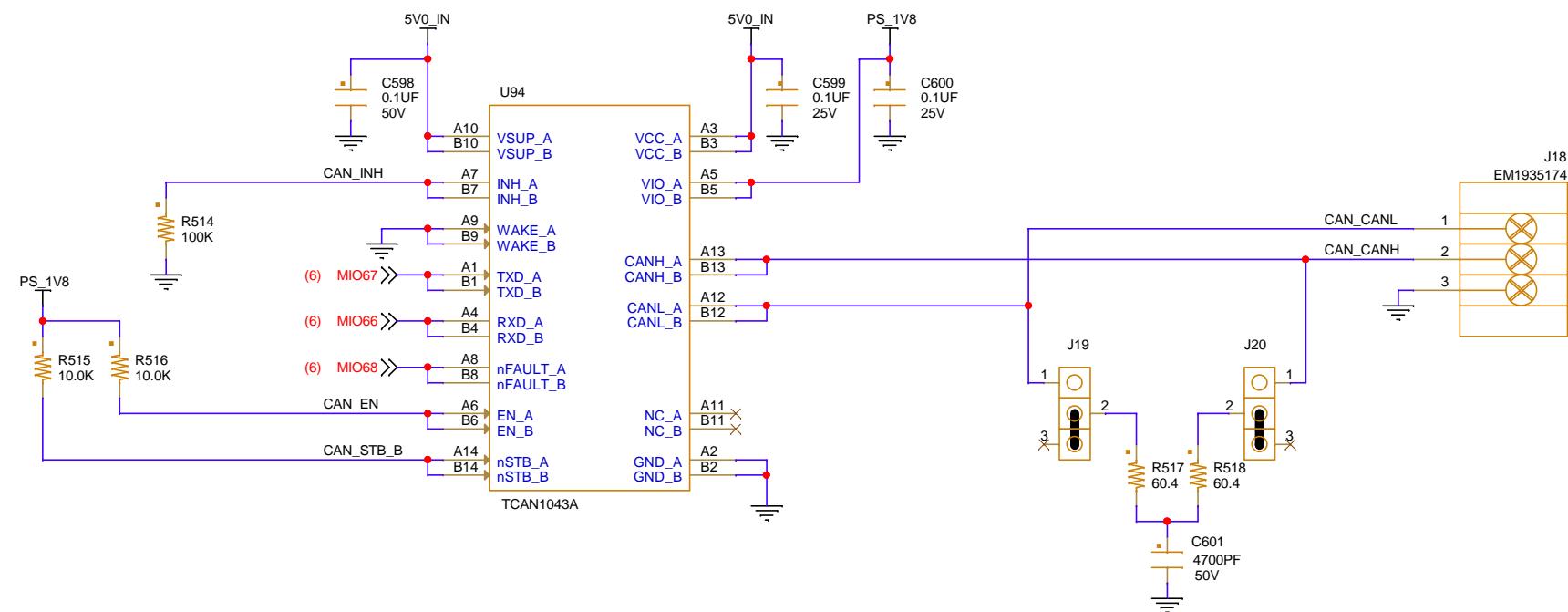
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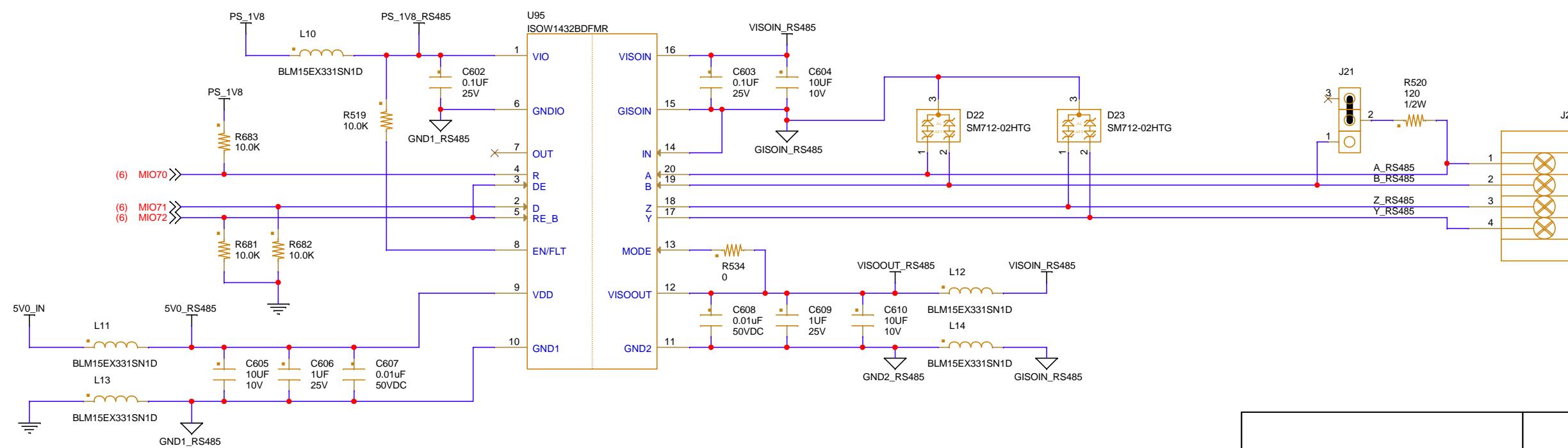


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CAN2.0



RS485



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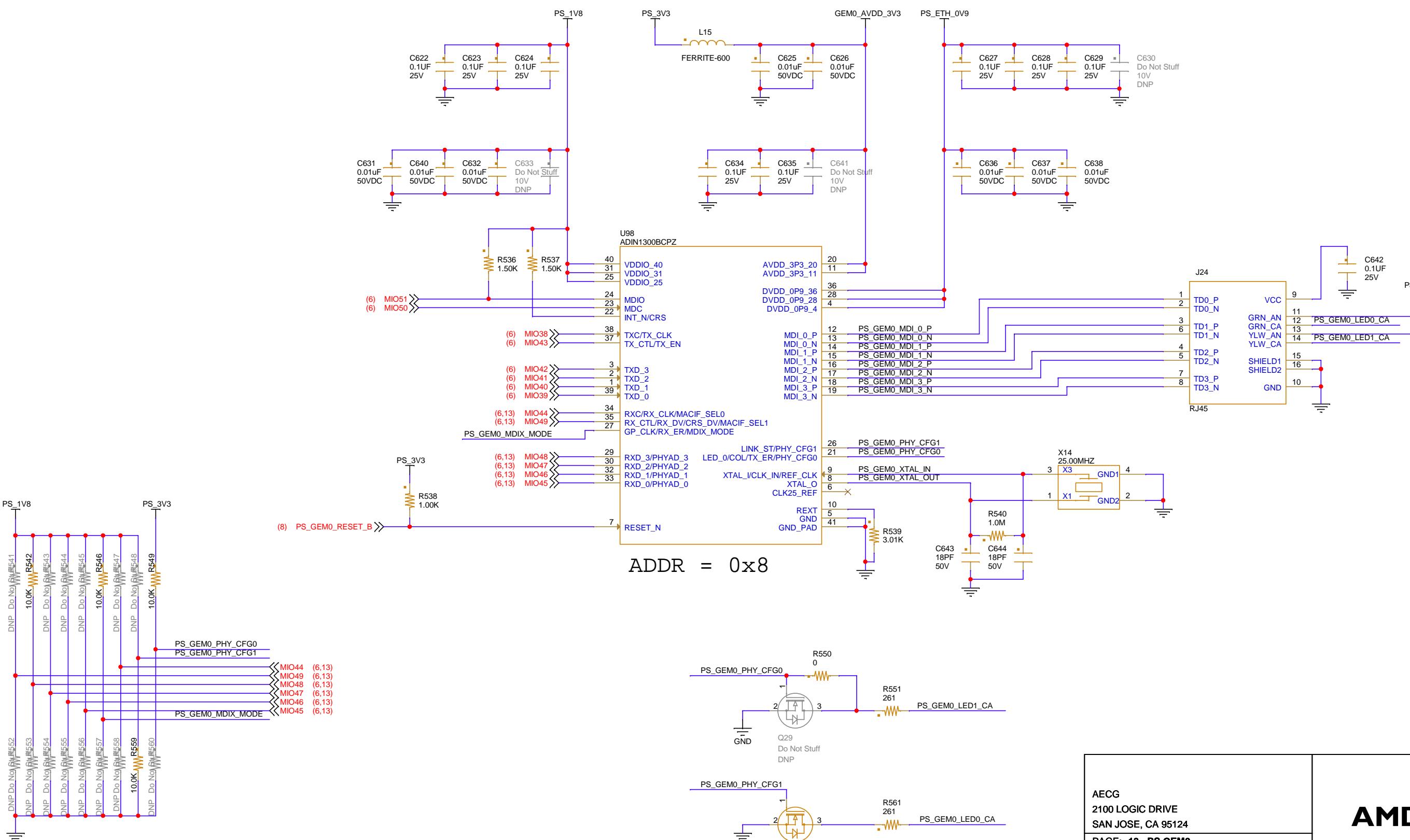
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PS GEM0

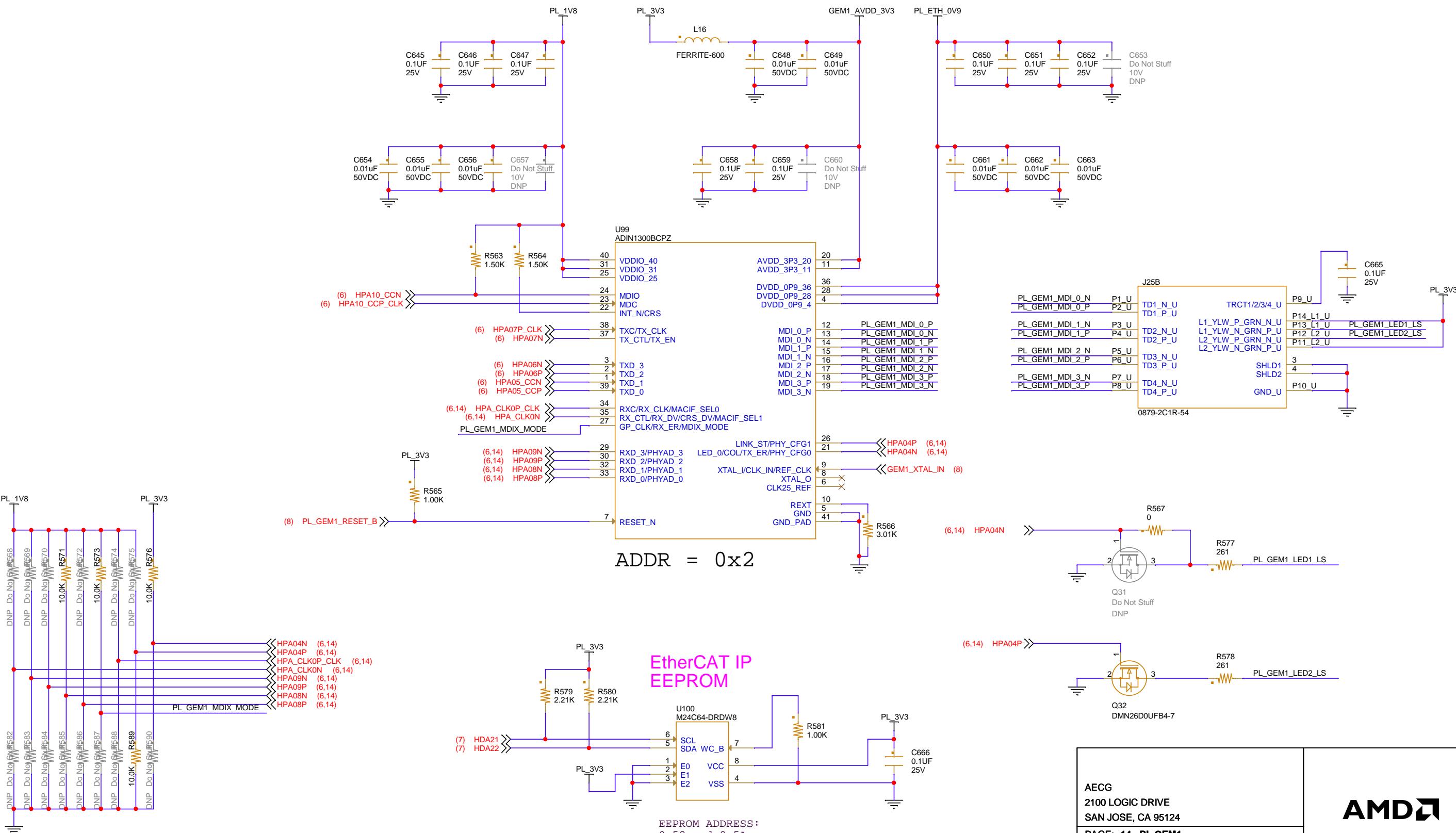


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PL GEM1

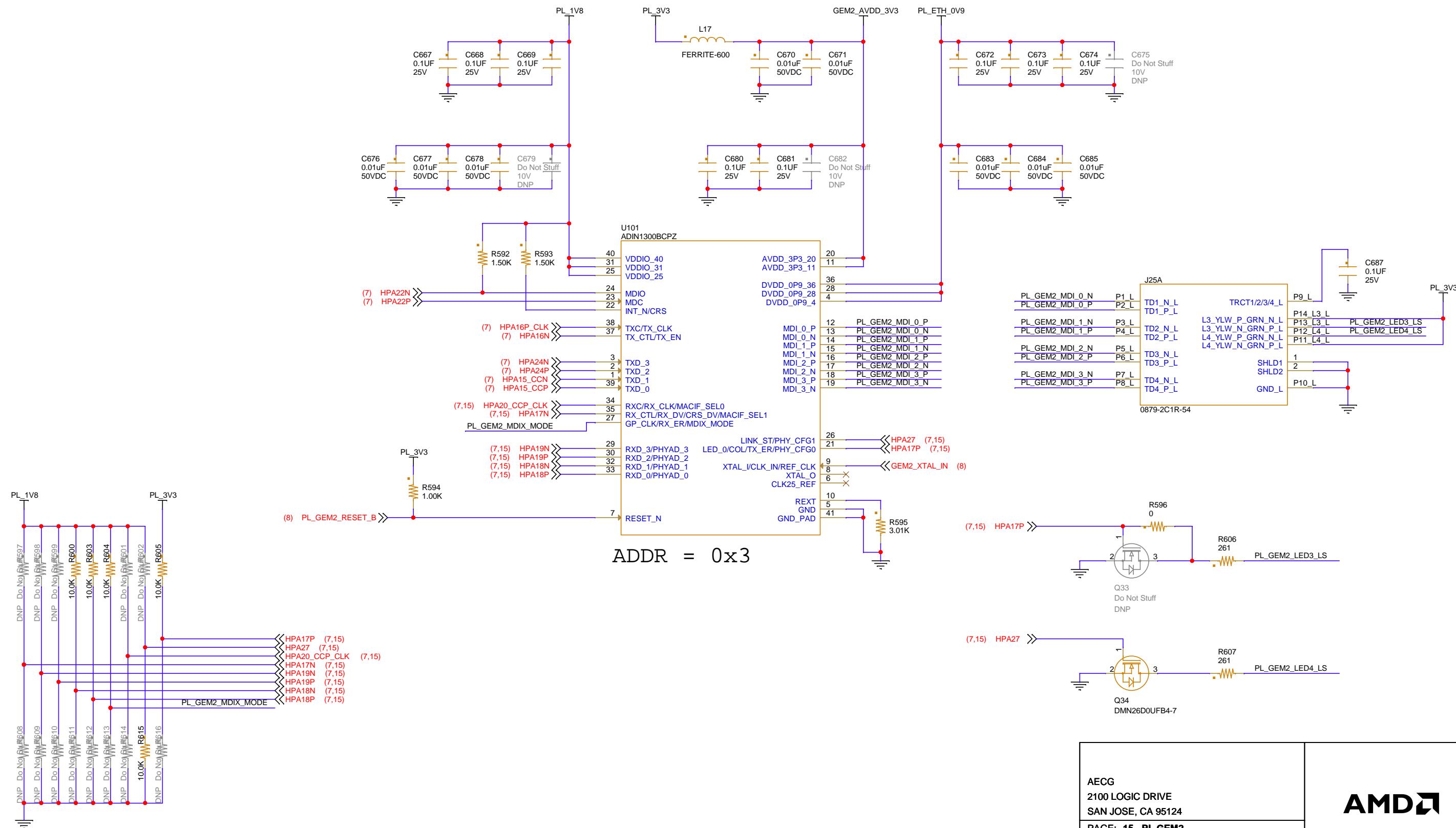


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PL GEM2

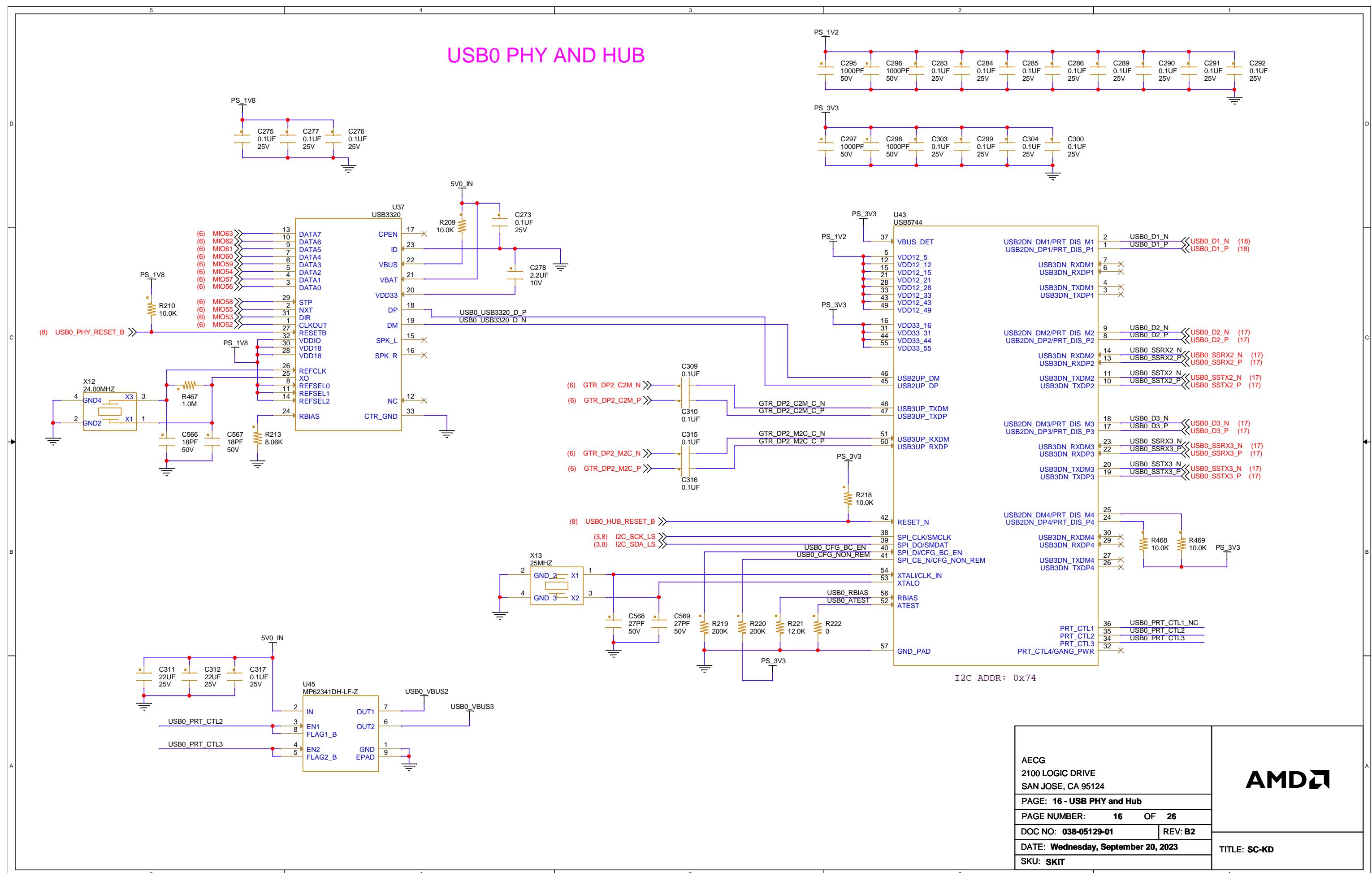


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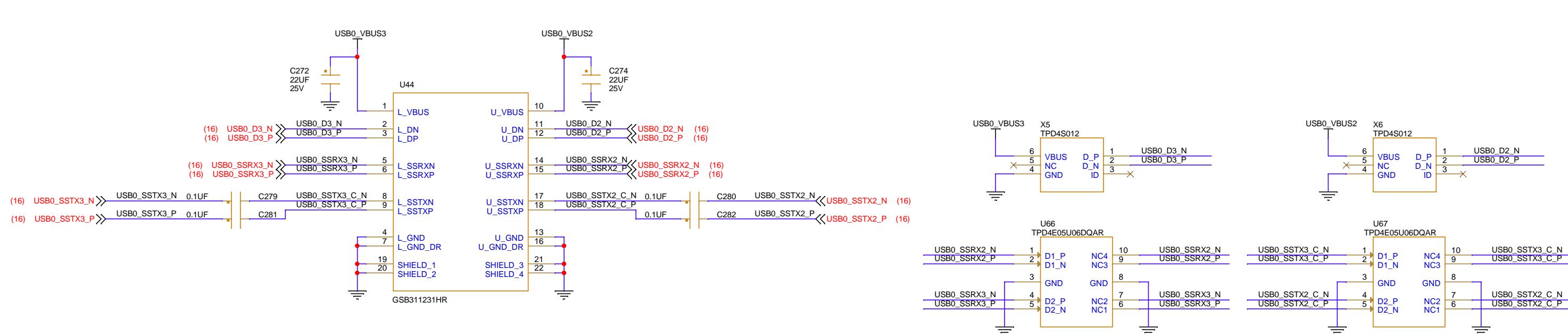
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USB0 PHY AND HUB



USB CONNECTOR



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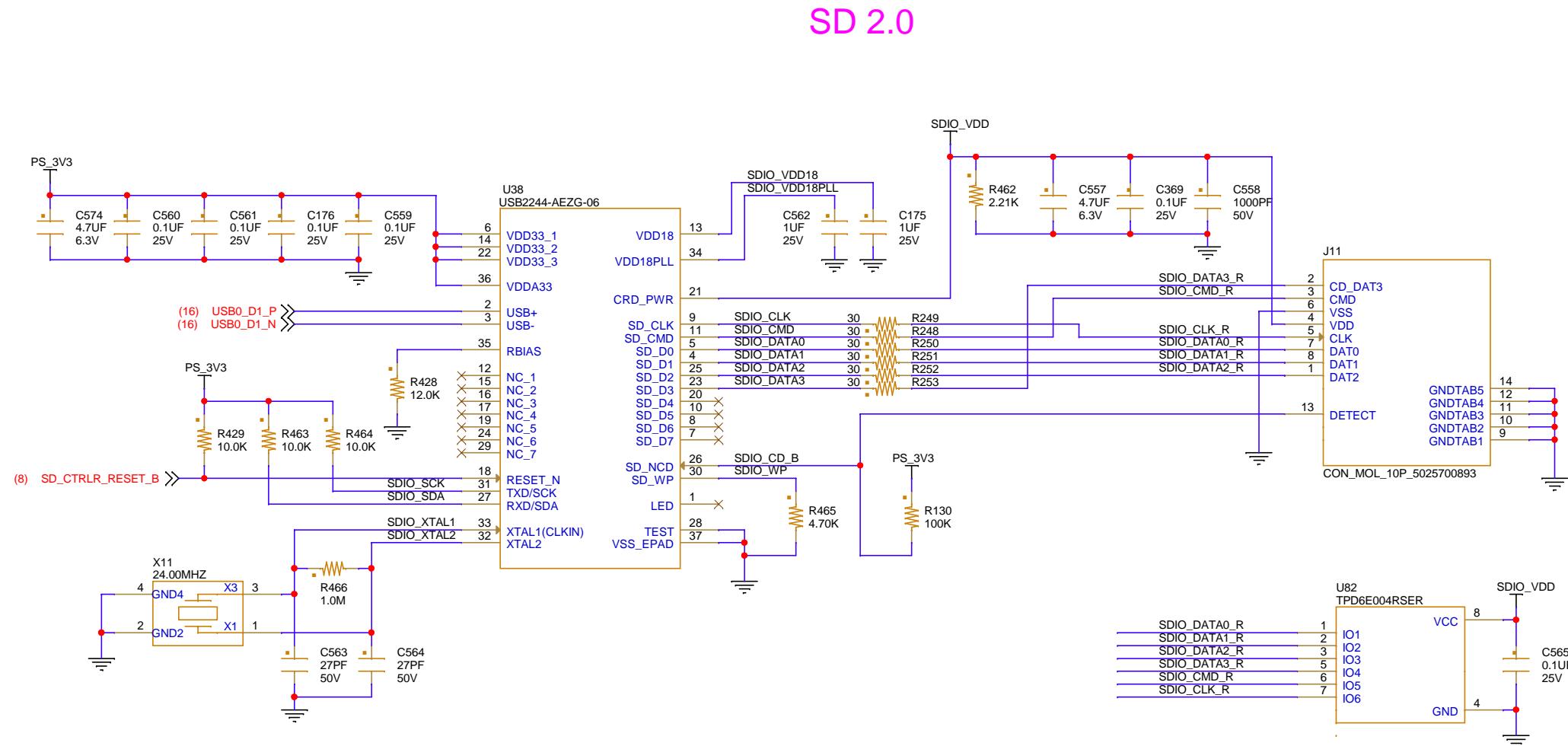
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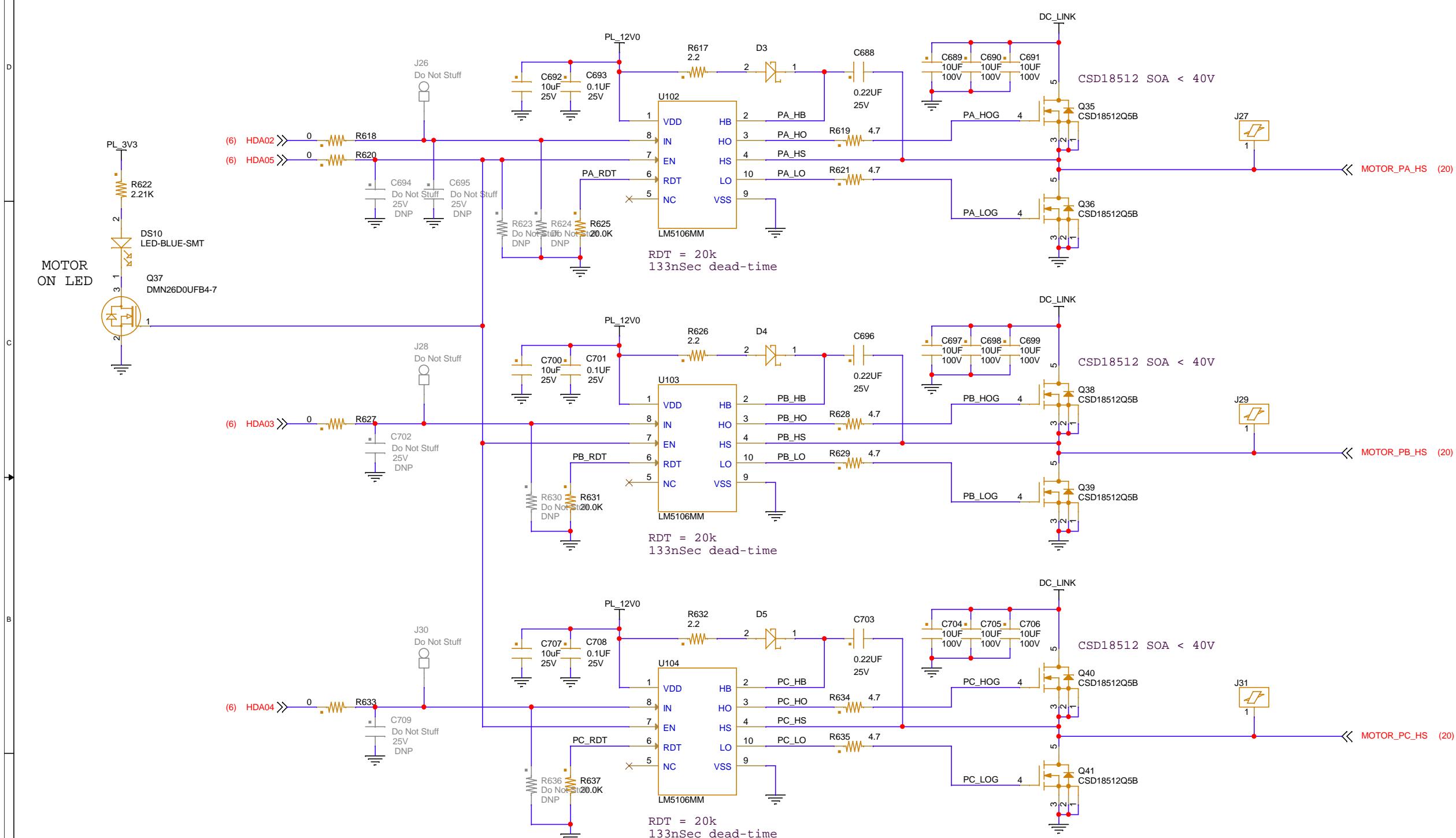


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MOTOR PHASE GATE DRIVERS



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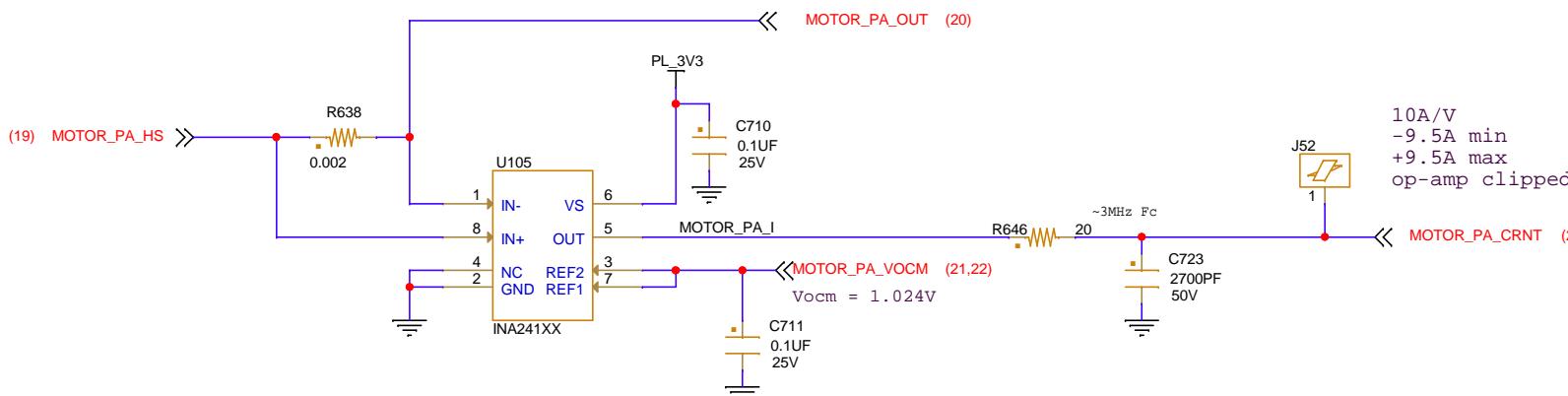
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MOTOR CURRENT SENSE AMPS



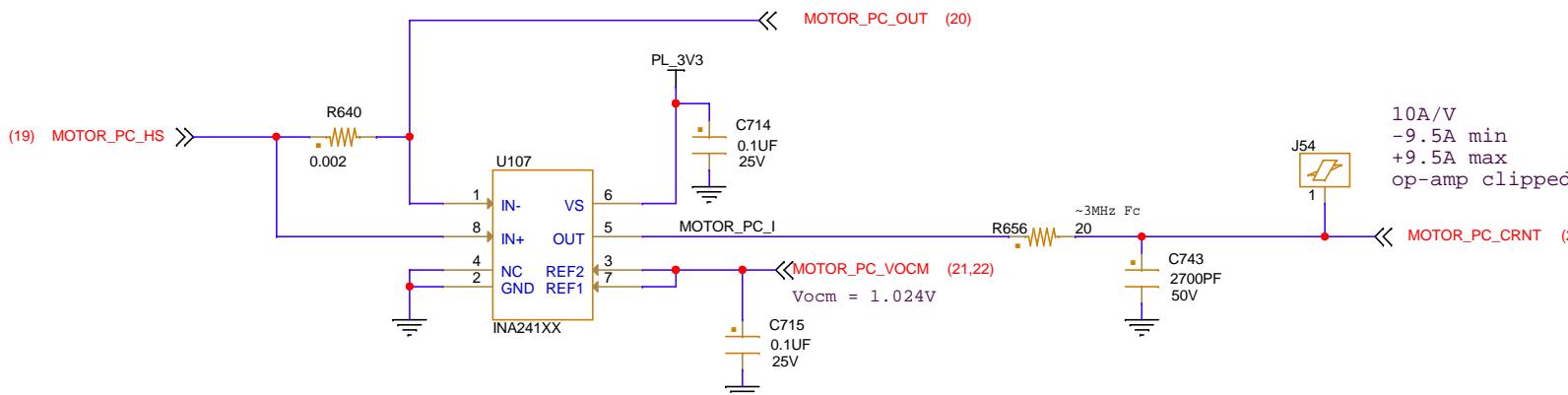
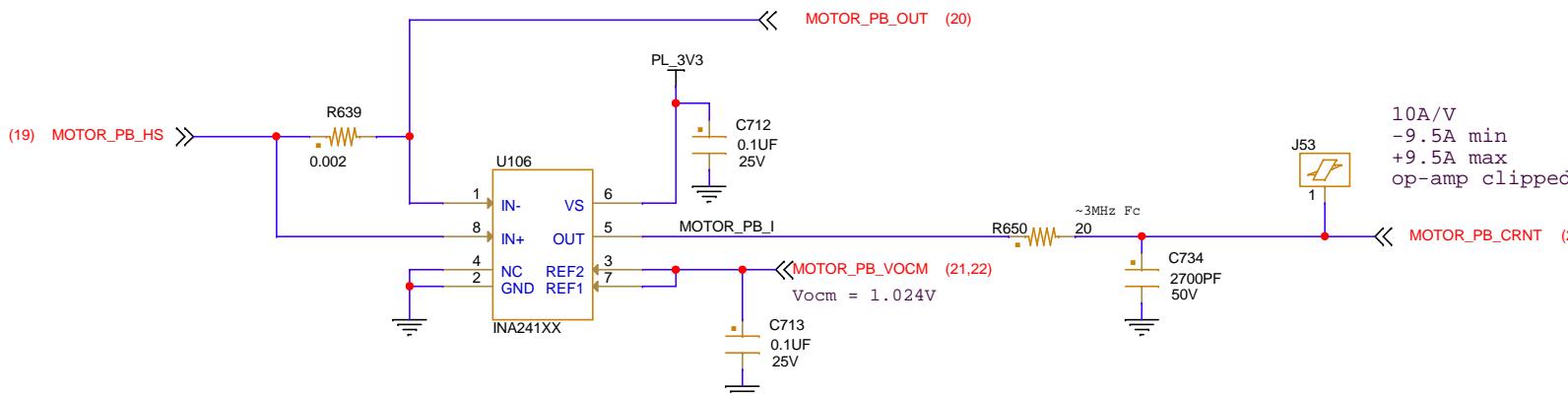
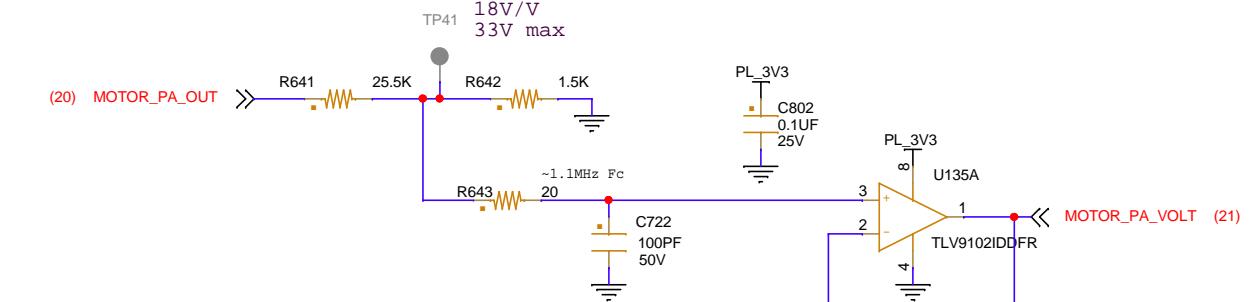
MOTOR CONNECTOR

(20) MOTOR_PA_OUT
(20) MOTOR_PB_OUT
(20) MOTOR_PC_OUT



1 2 1 2 3

MOTOR VOLTAGE DIVIDERS



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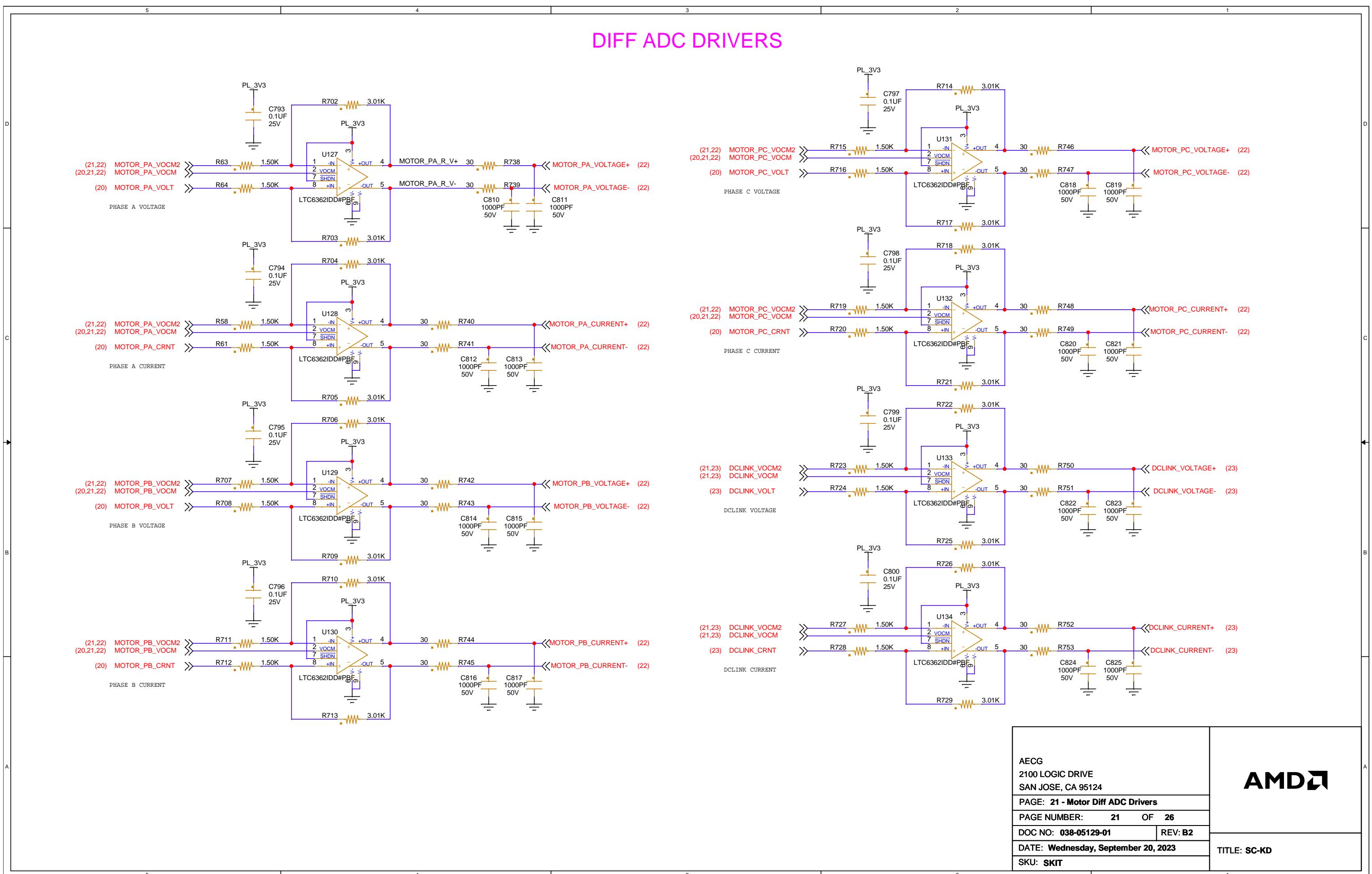
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DIFF ADC DRIVERS

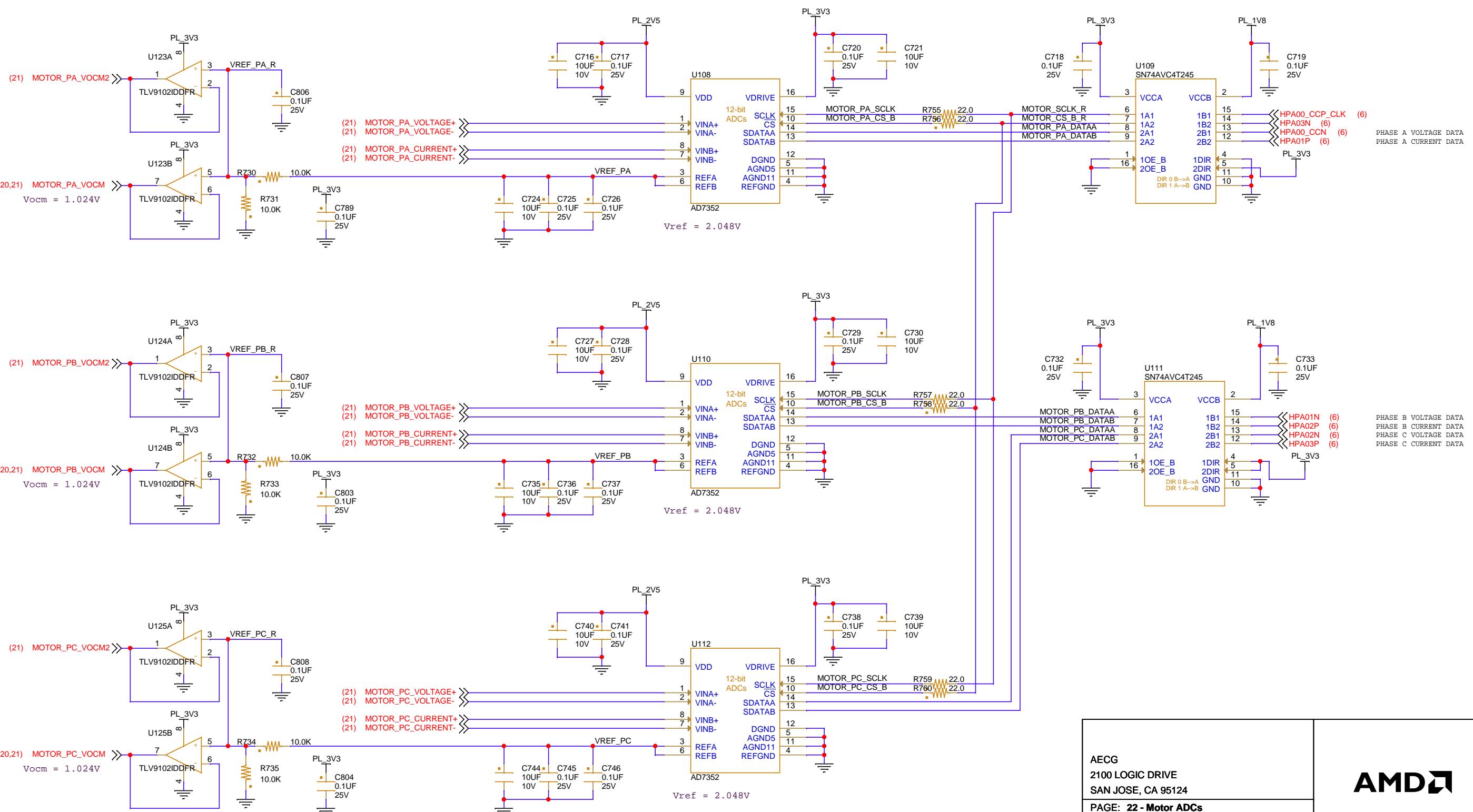


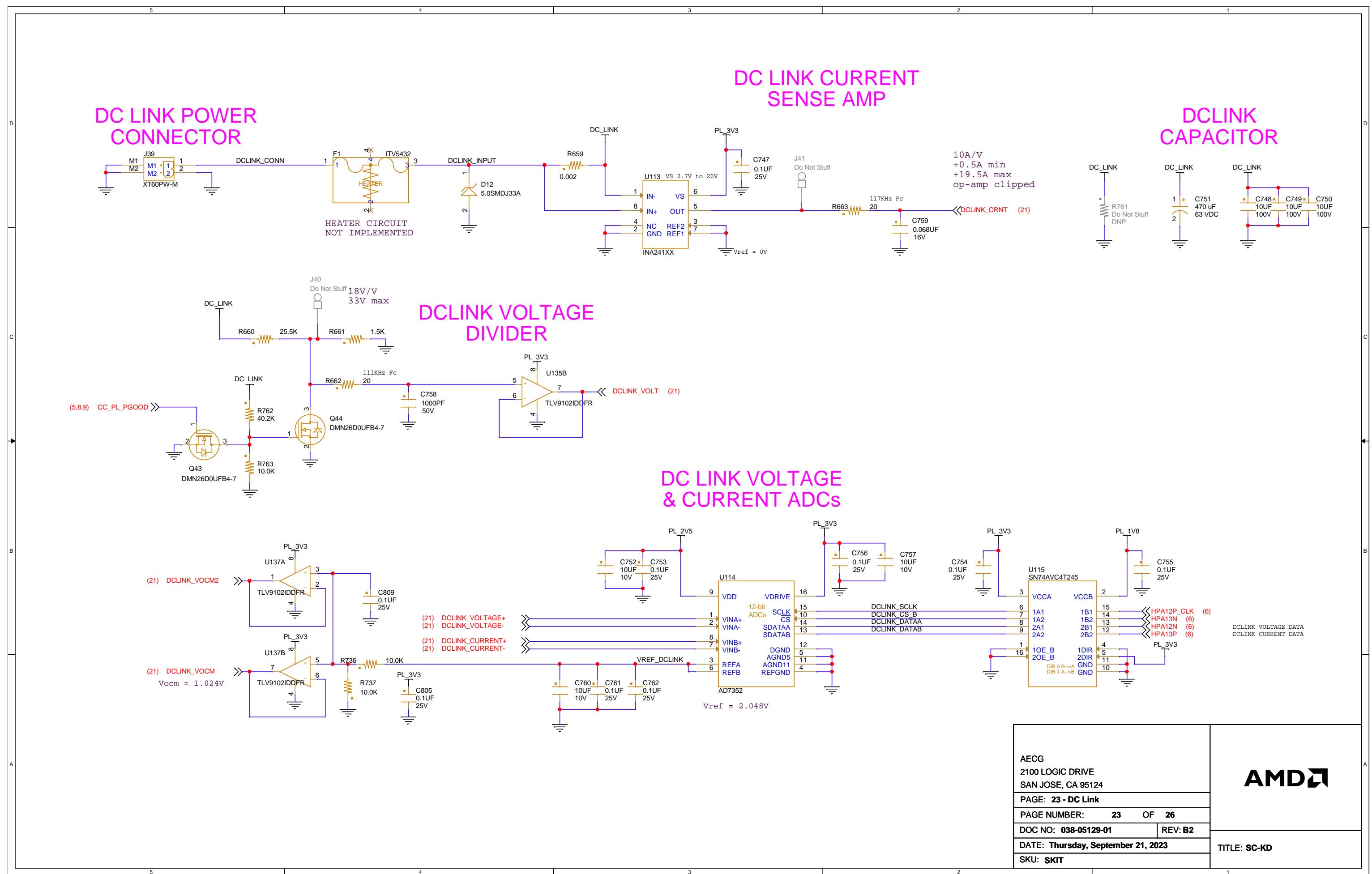
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MOTOR VOLTAGE & CURRENT ADCS



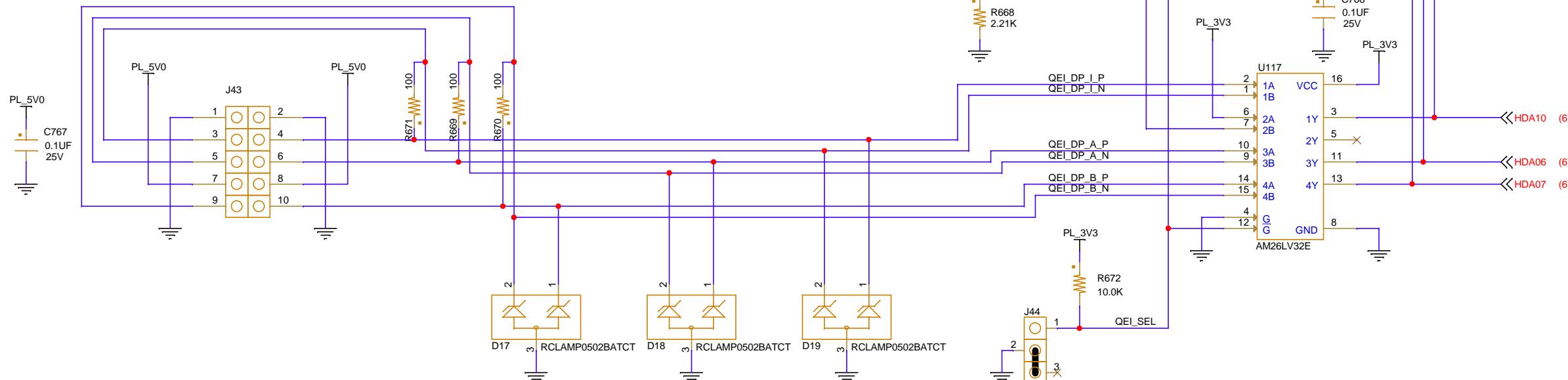


SINGLE ENDED ENCODER INPUT

5 4 3 2 1

LINE RECEIVERS

DIFFERENTIAL ENCODER INPUT



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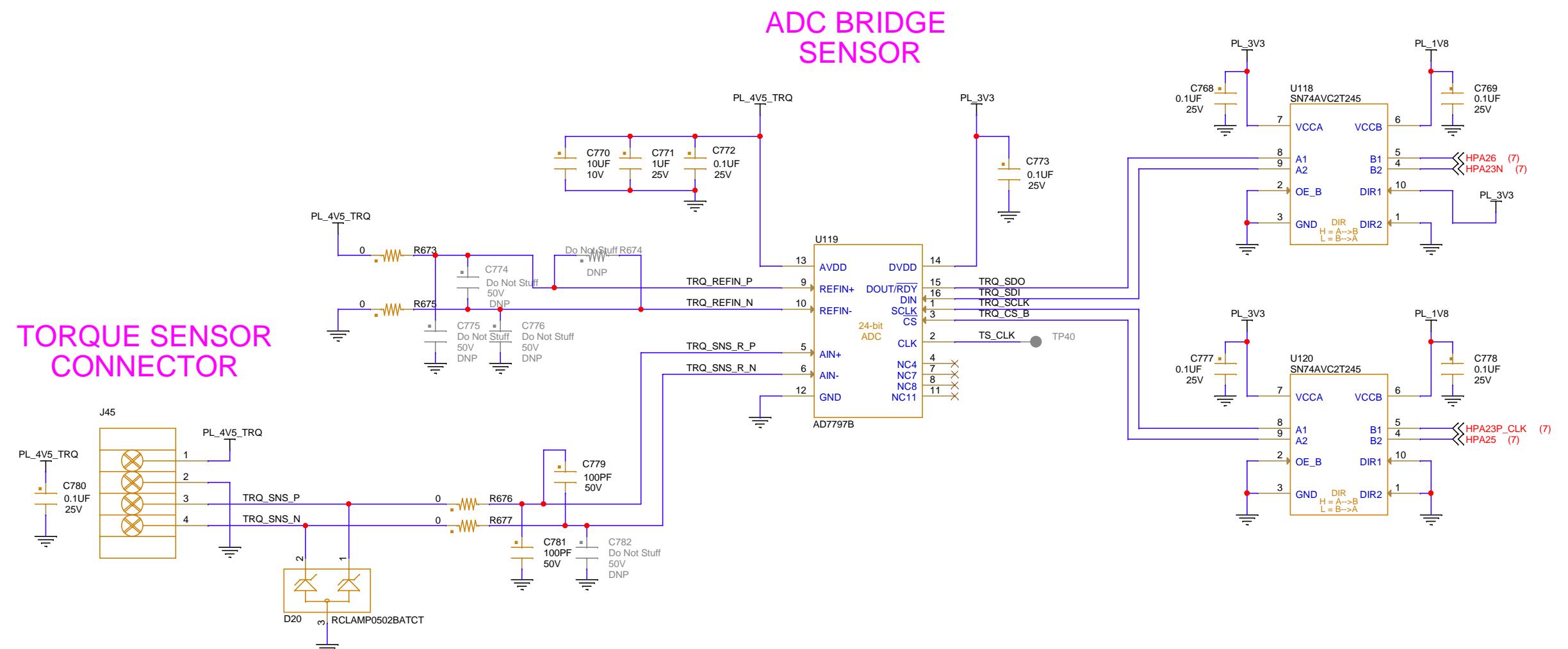
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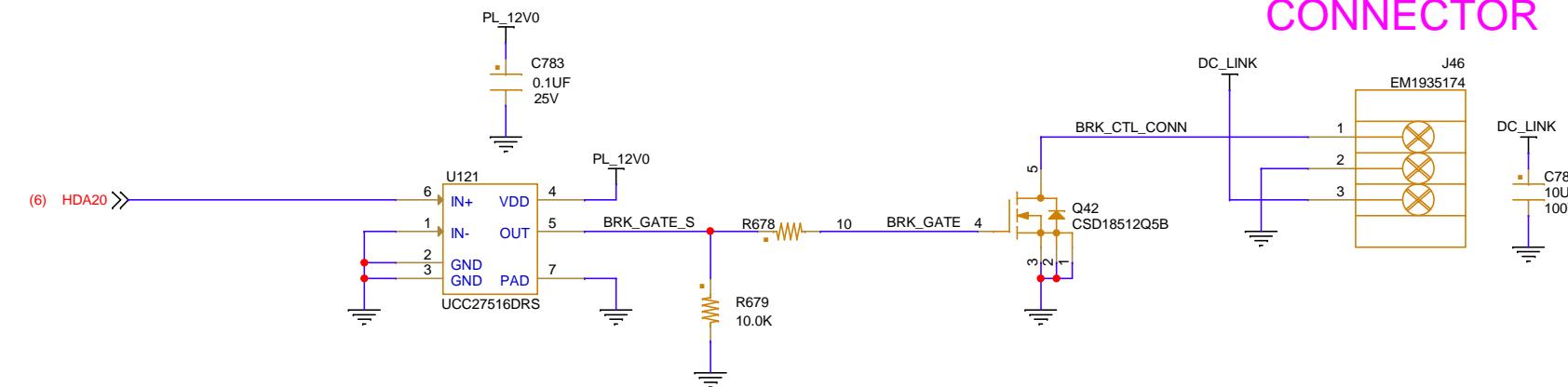
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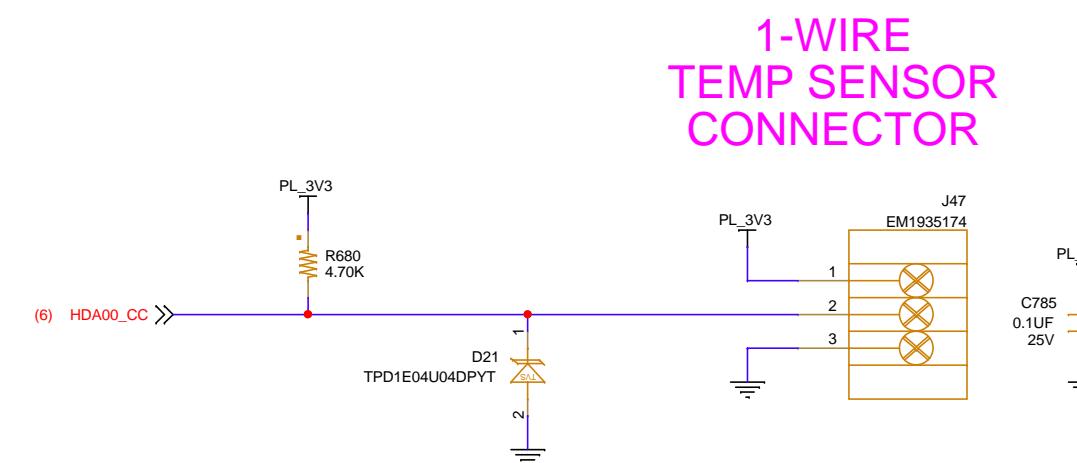
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LOW SIDE GATE DRIVER



BRAKE CONNECTOR



1-WIRE TEMP SENSOR CONNECTOR

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