

OPEN CELLULAR POWER SOURCE BOARD SCHEMATICS

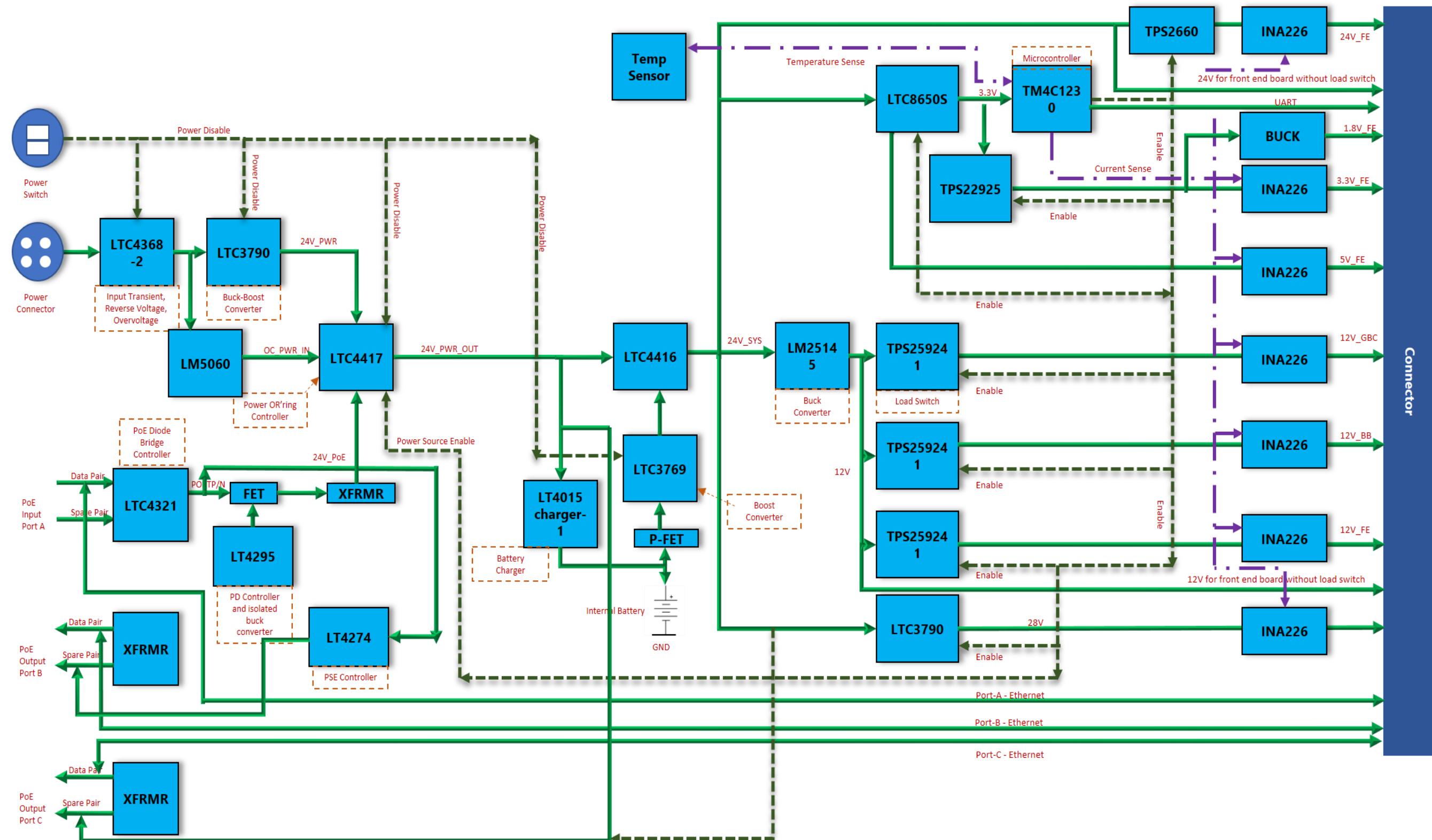
REVISION HISTORY

SI NO	REVISION	DATE	REMARKS
1	0.1	17-JUL-2018	RELEASE -1

NOTE: PLEASE USE ADOBE PDF VIEWER FOR BEST RESULTS

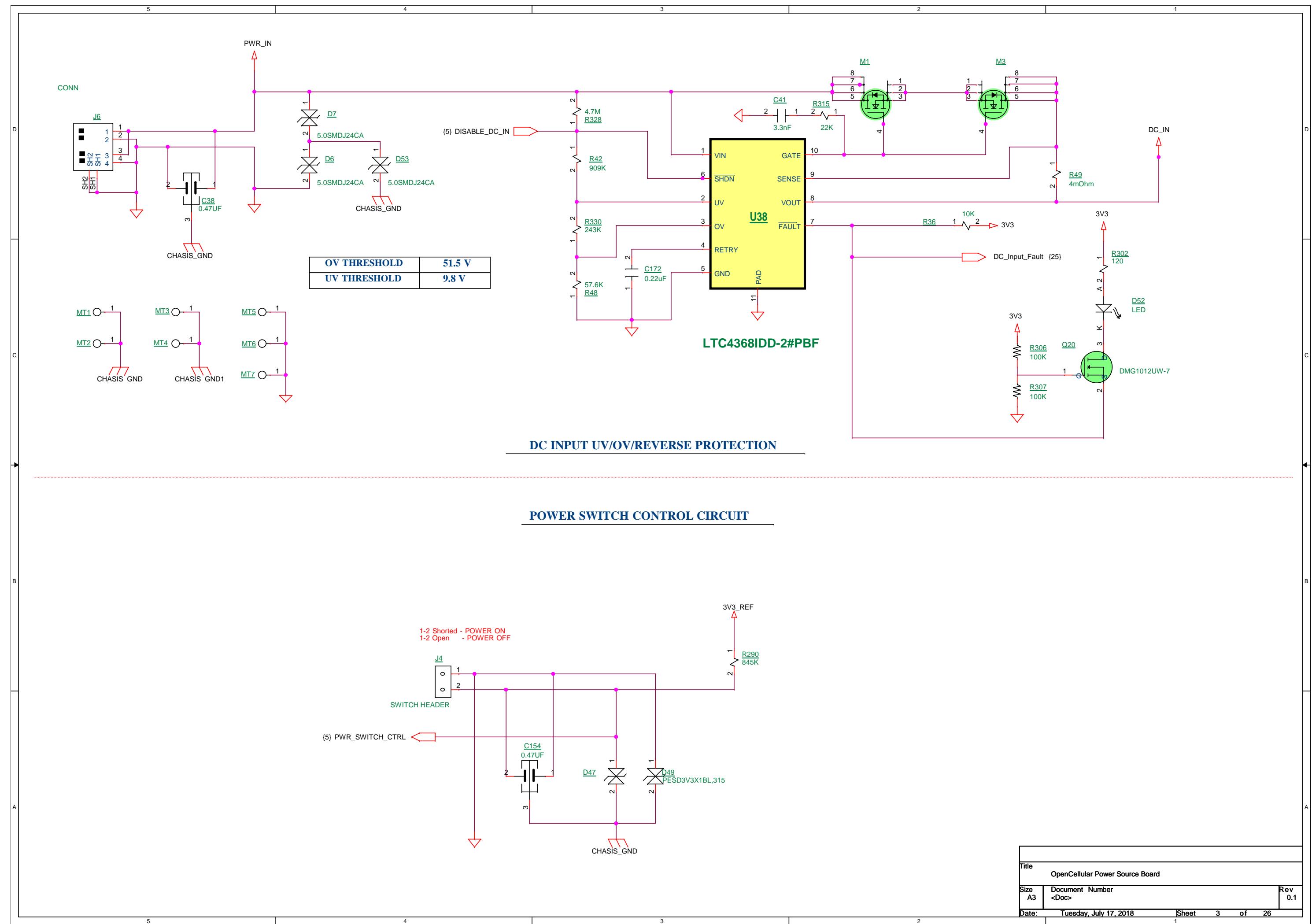
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BLOCK DIAGRAM

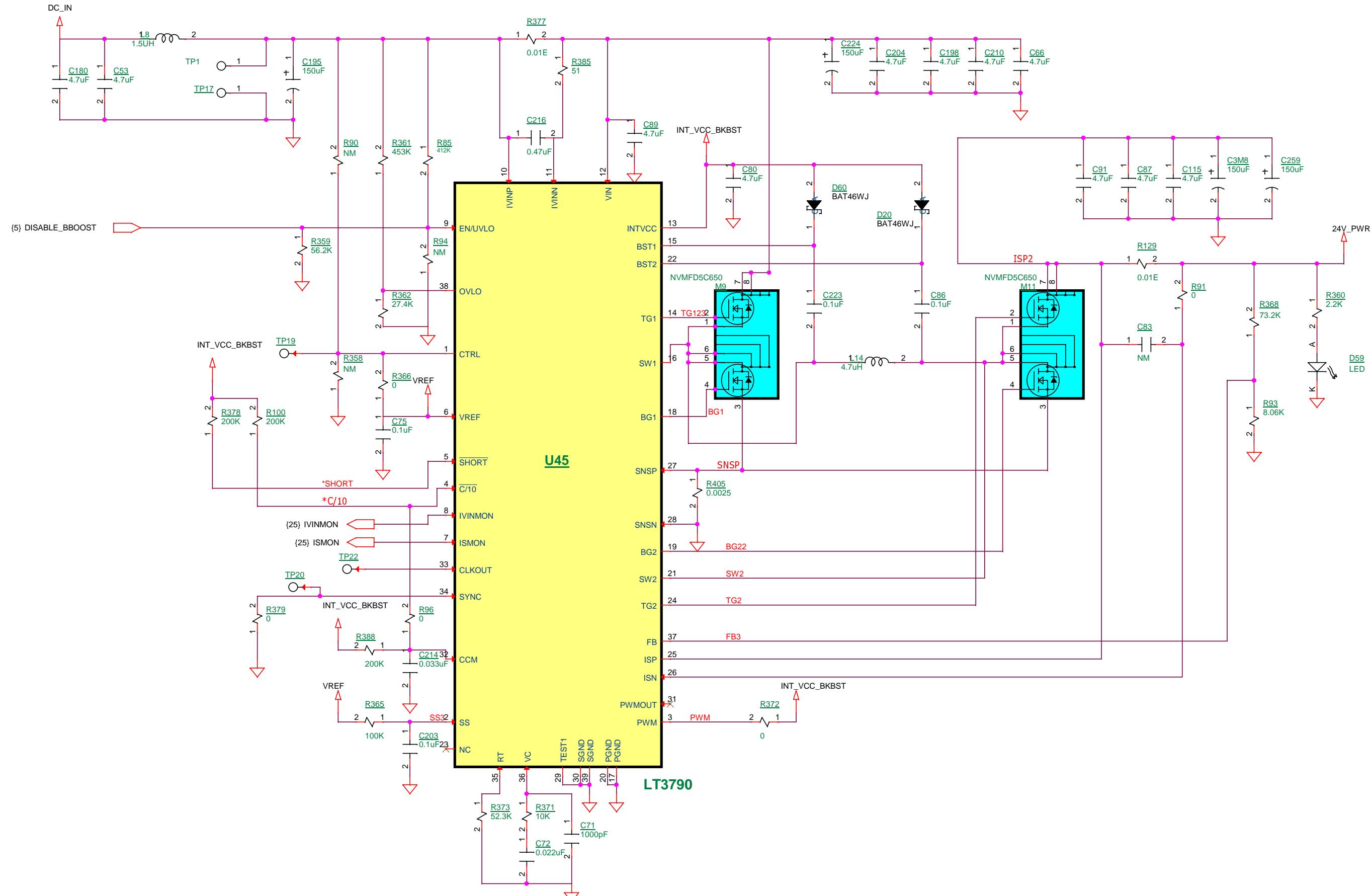


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DC INPUT (12VDC TO 48VDC) TO 24VDC CONVERTER

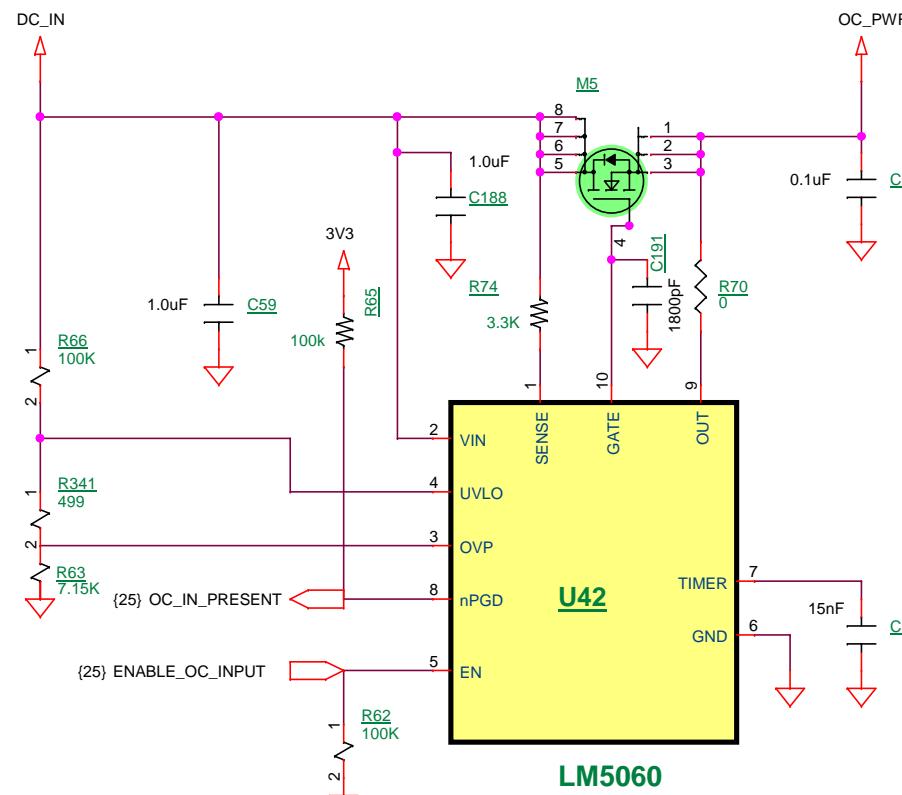


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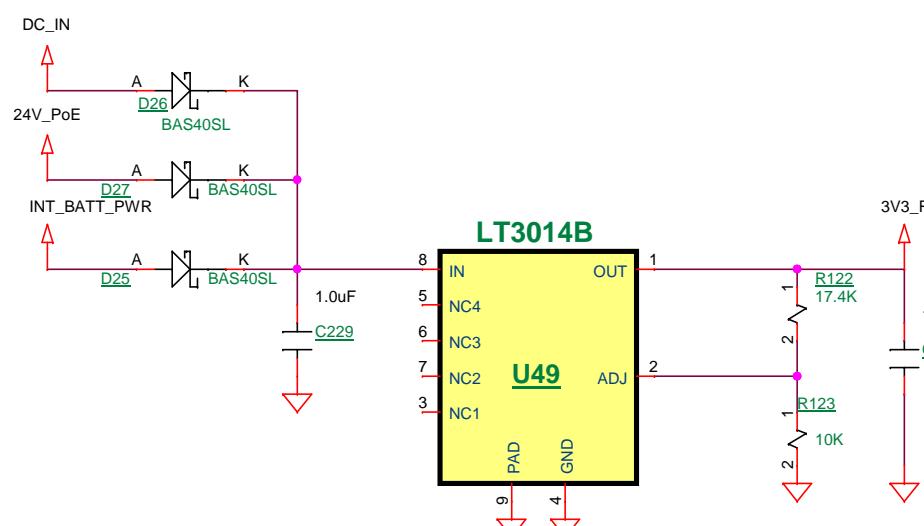
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OC POWER CONTROL CIRCUIT

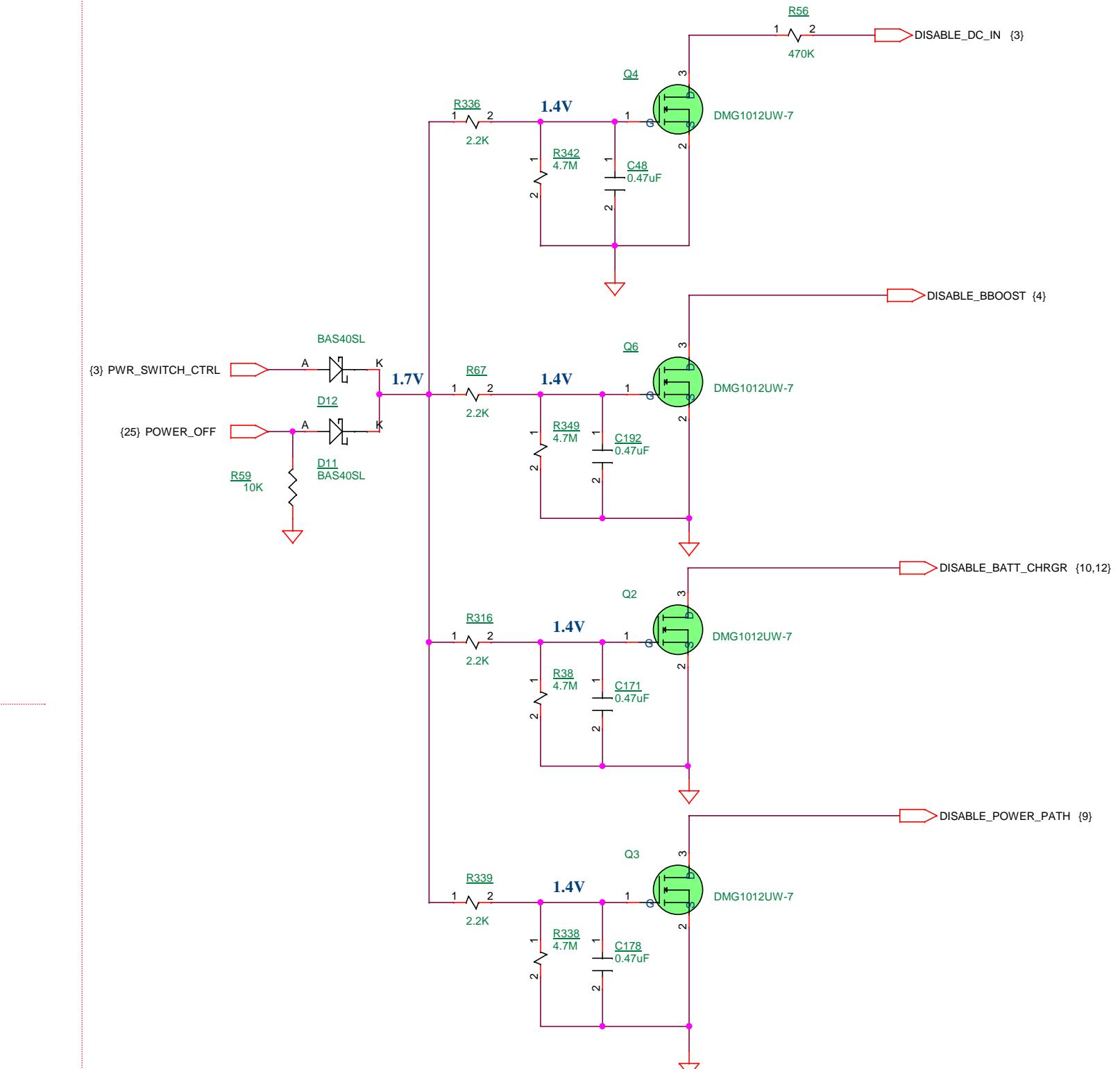


OV THRESHOLD	26.5 V
UV THRESHOLD	21.5 V

REFERENCE VOLTAGE GENERATION

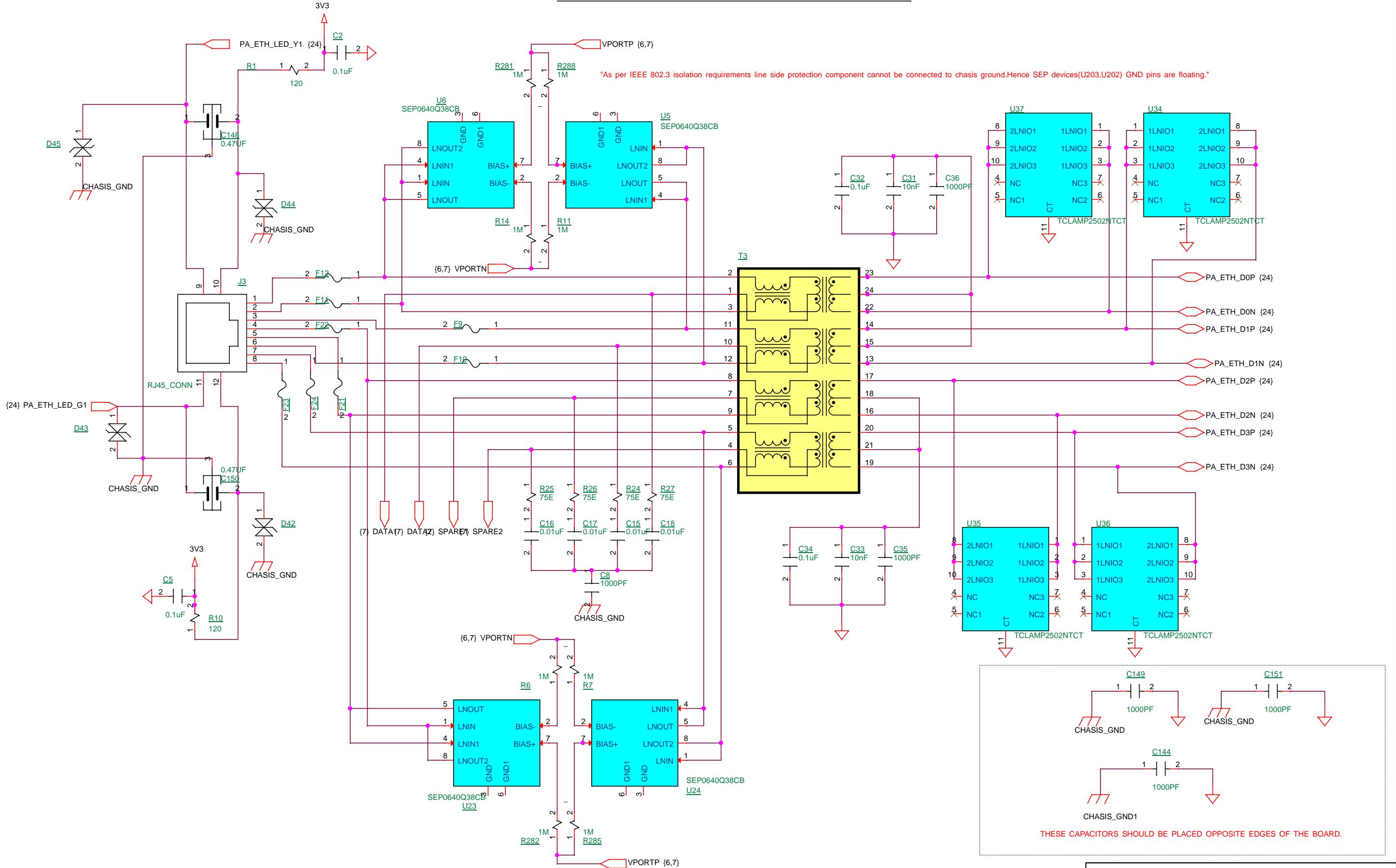


POWER SWITCH CONTROL LOGIC - Contd.,



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PoE PORT-A (PD PORT) CONNECTOR SECTION



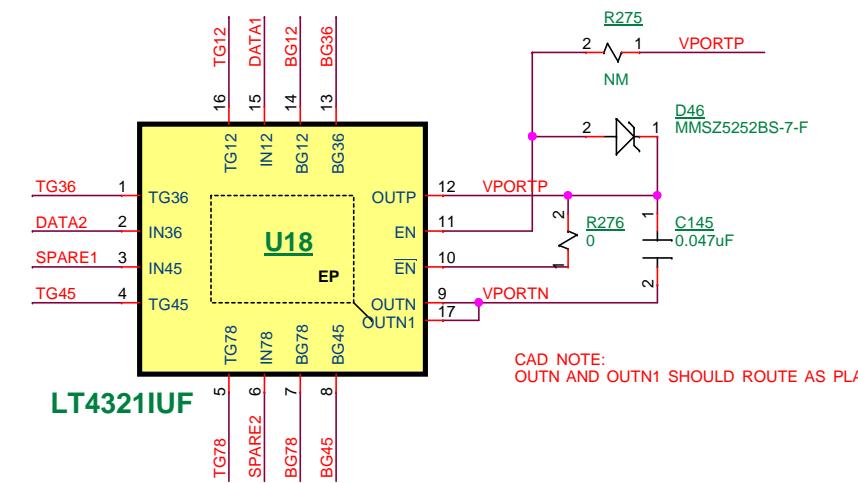
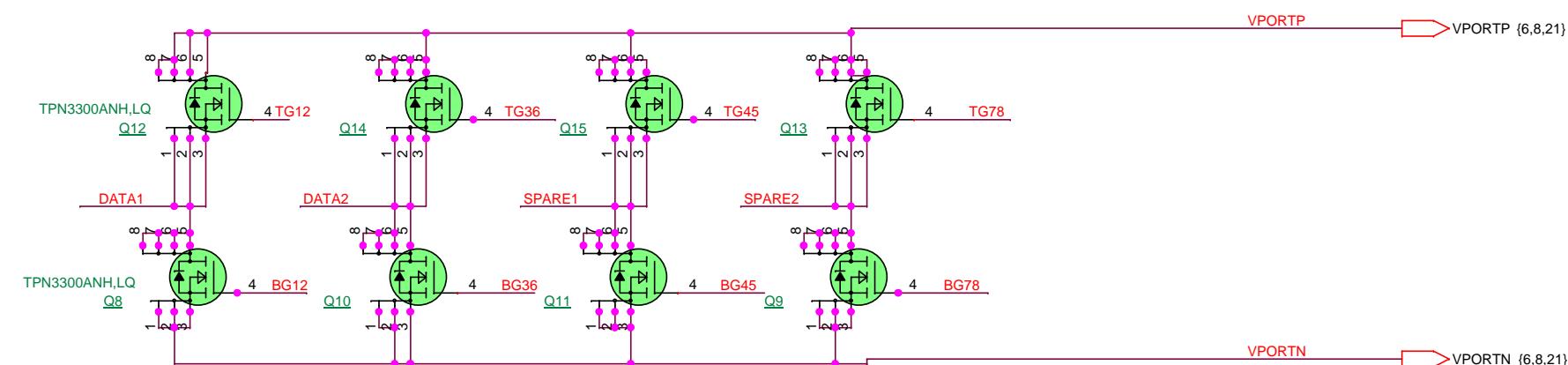
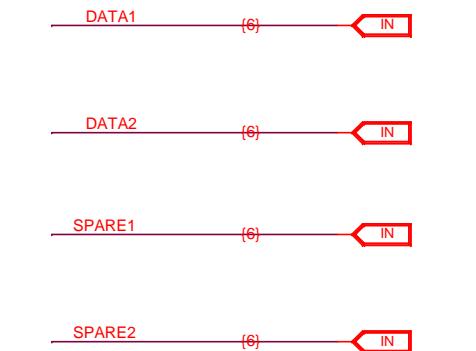
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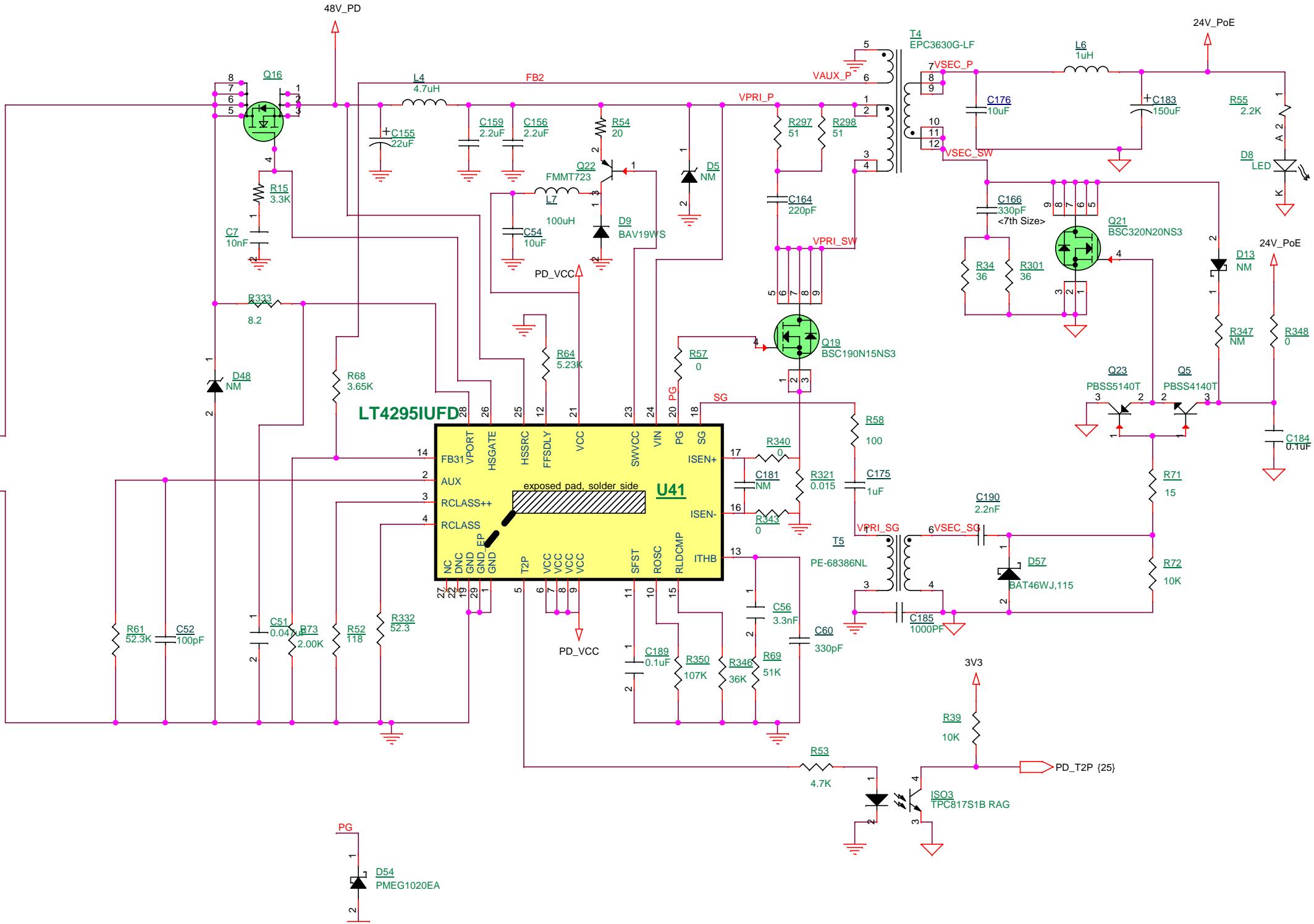
PoE IDEAL DIODE BRIDGE CONTROLLERCAD NOTE:
OUTN AND OUTN1 SHOULD ROUTE AS PLANE NOT A NET.

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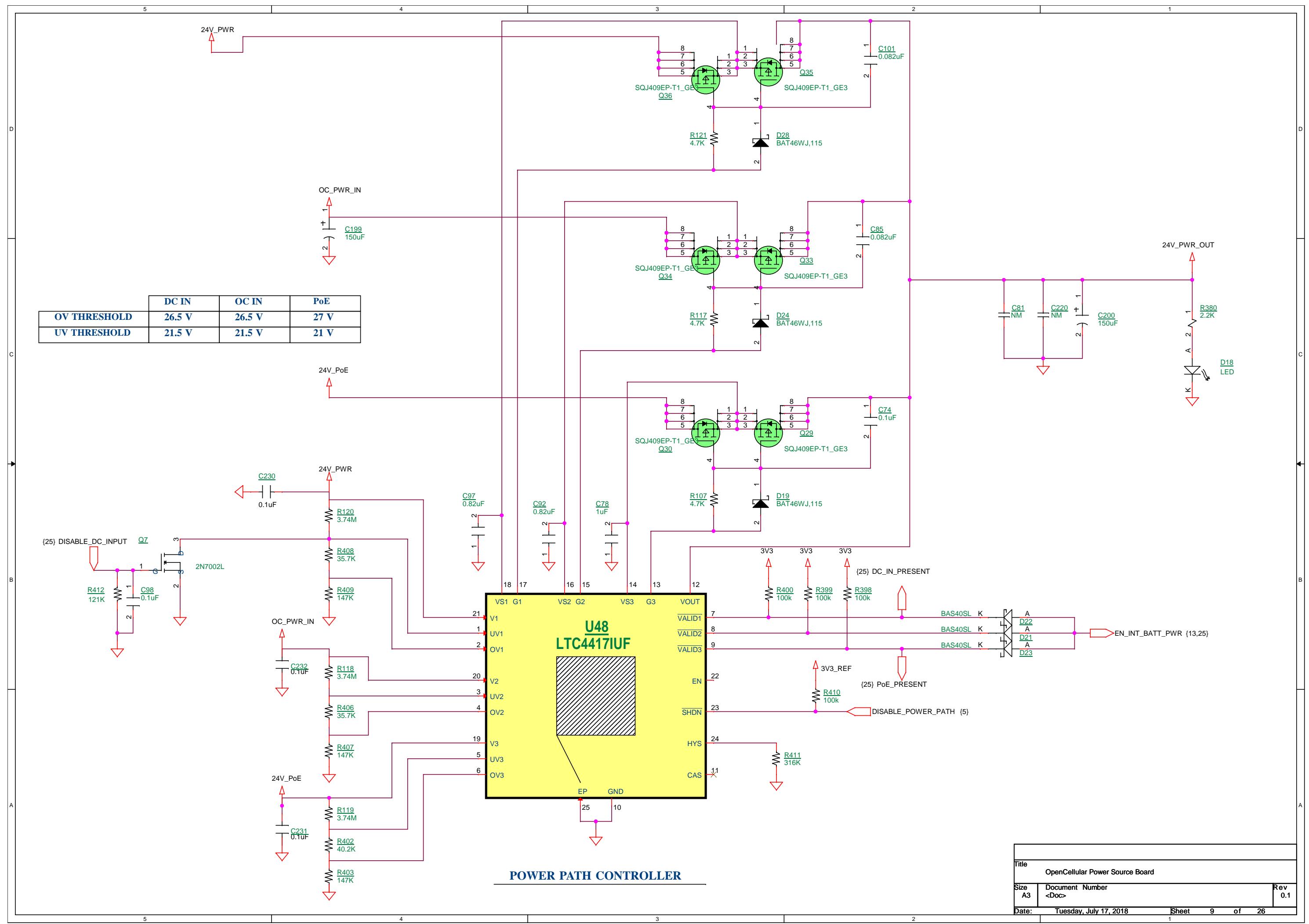
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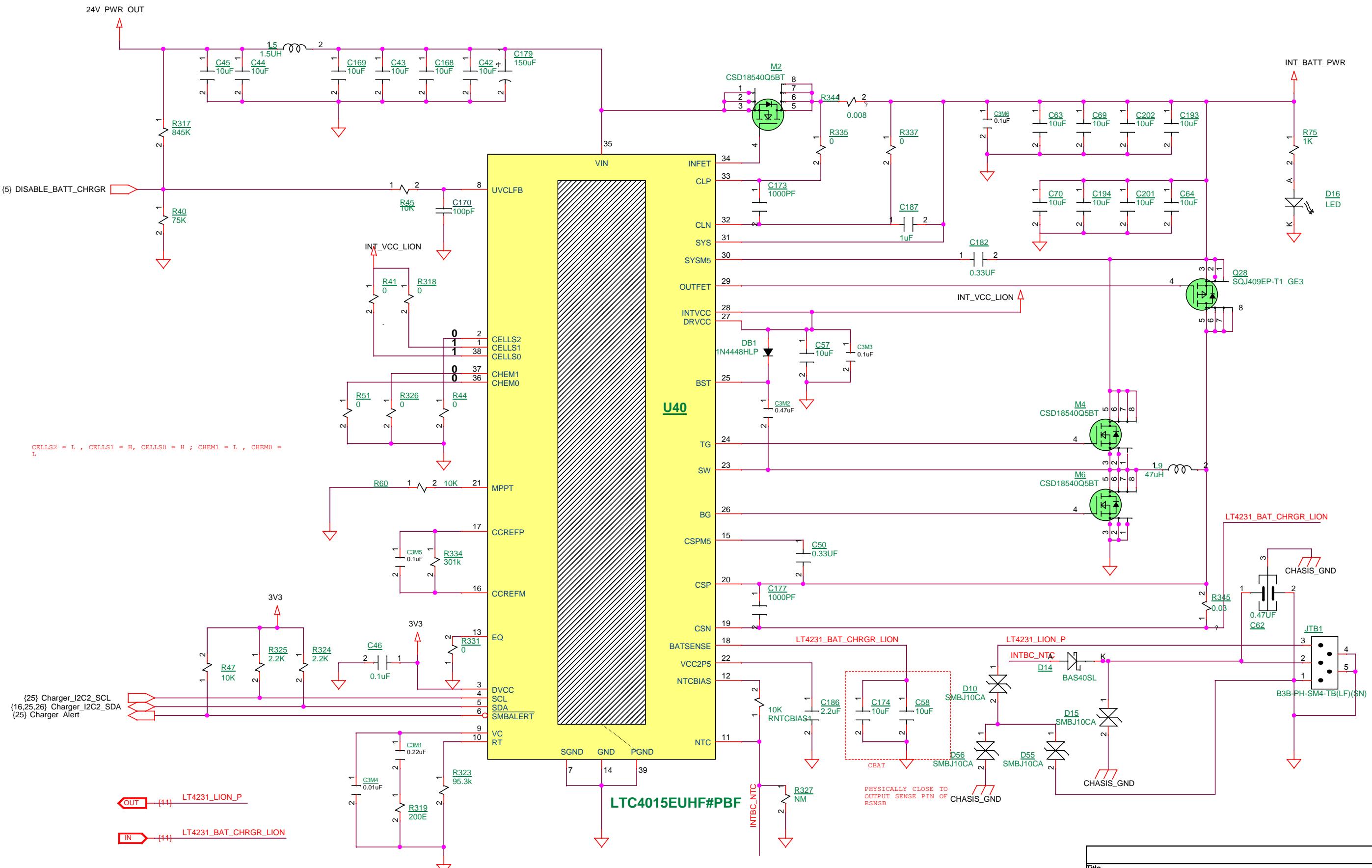
IEEE 802.3bt PD INTERFACE WITH FLYBACK CONTROLLER



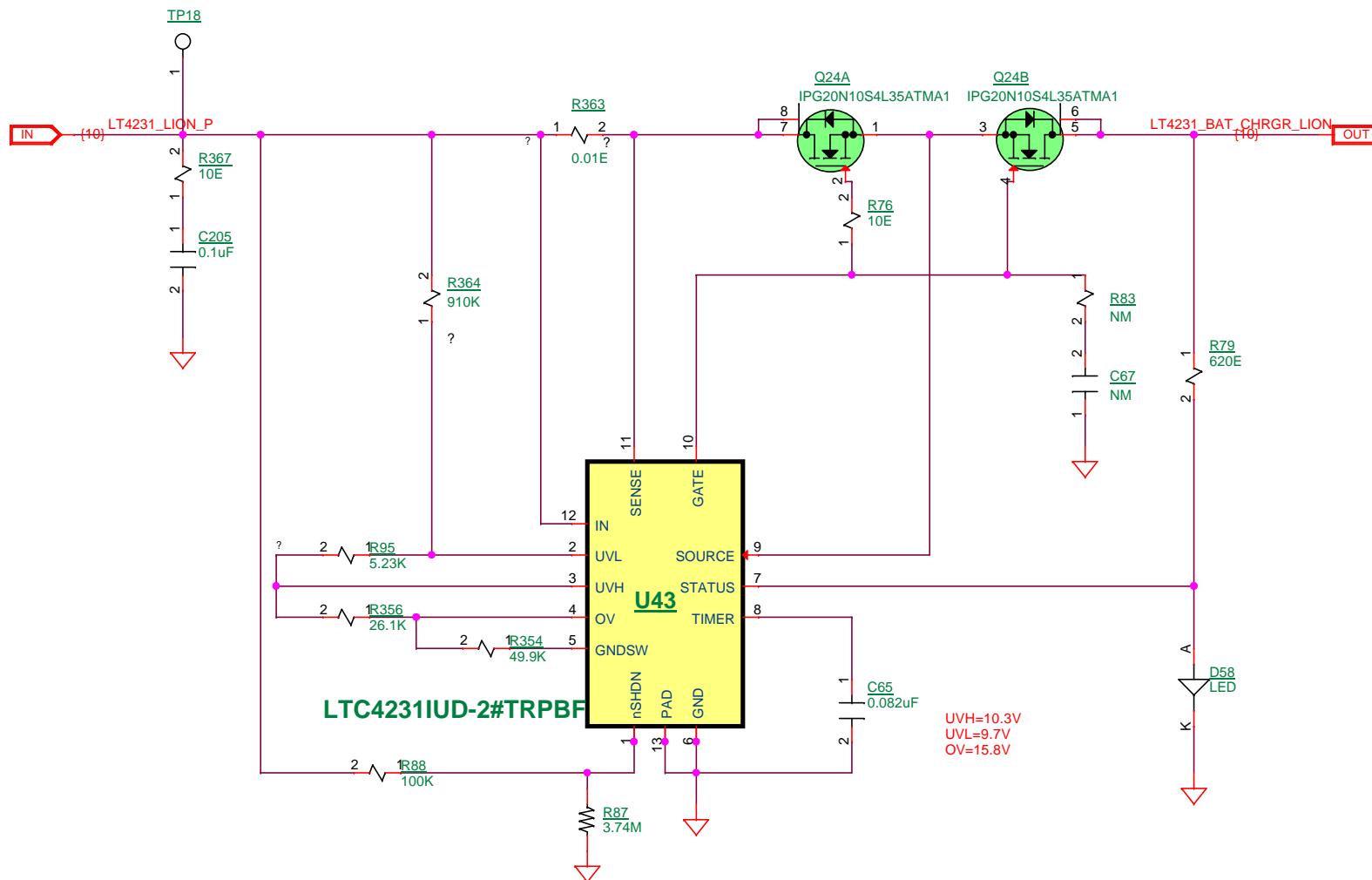
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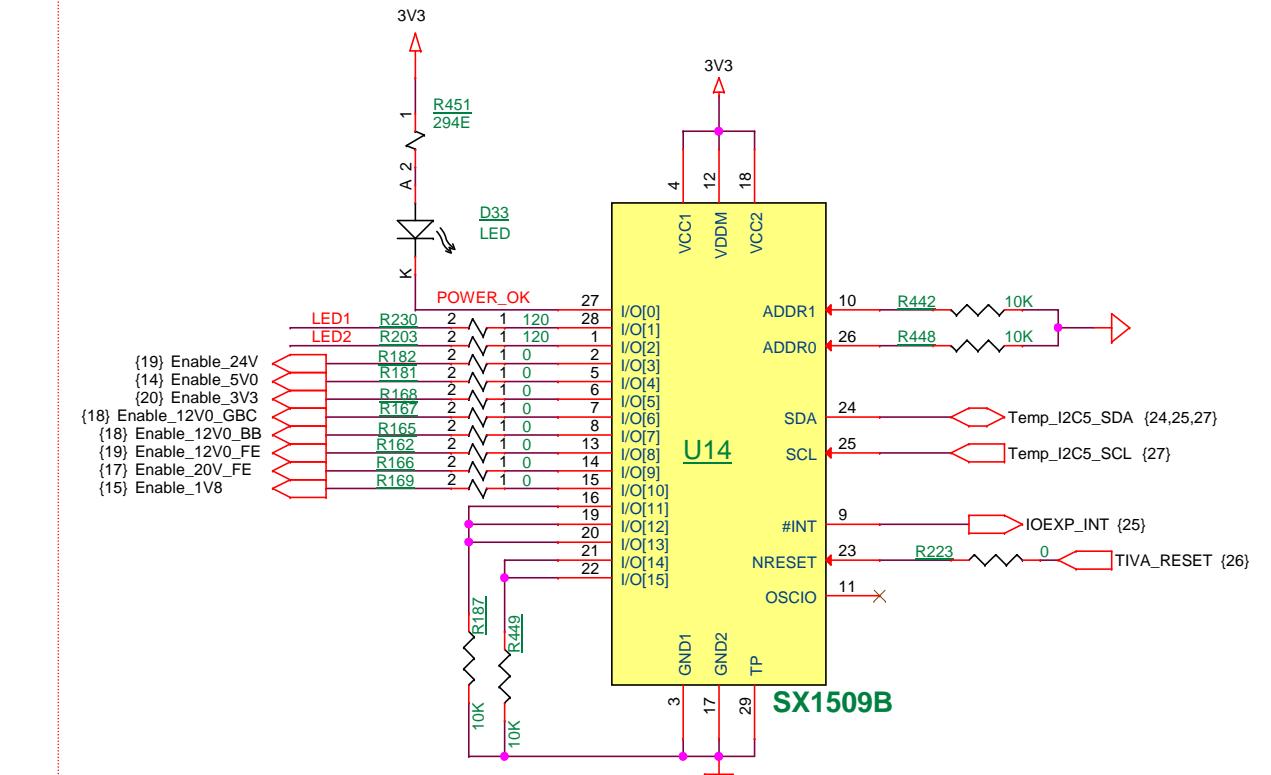
BATTERY CHARGER



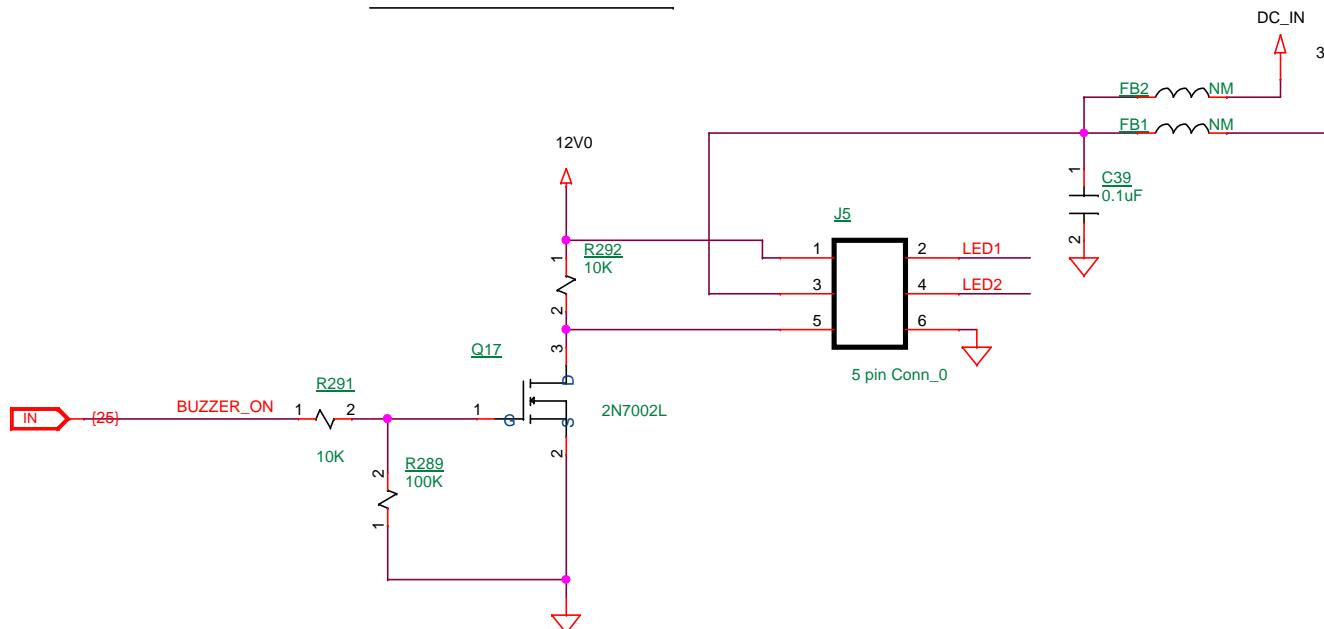
HOT SWAP CONTROLLER



IO EXPANDER



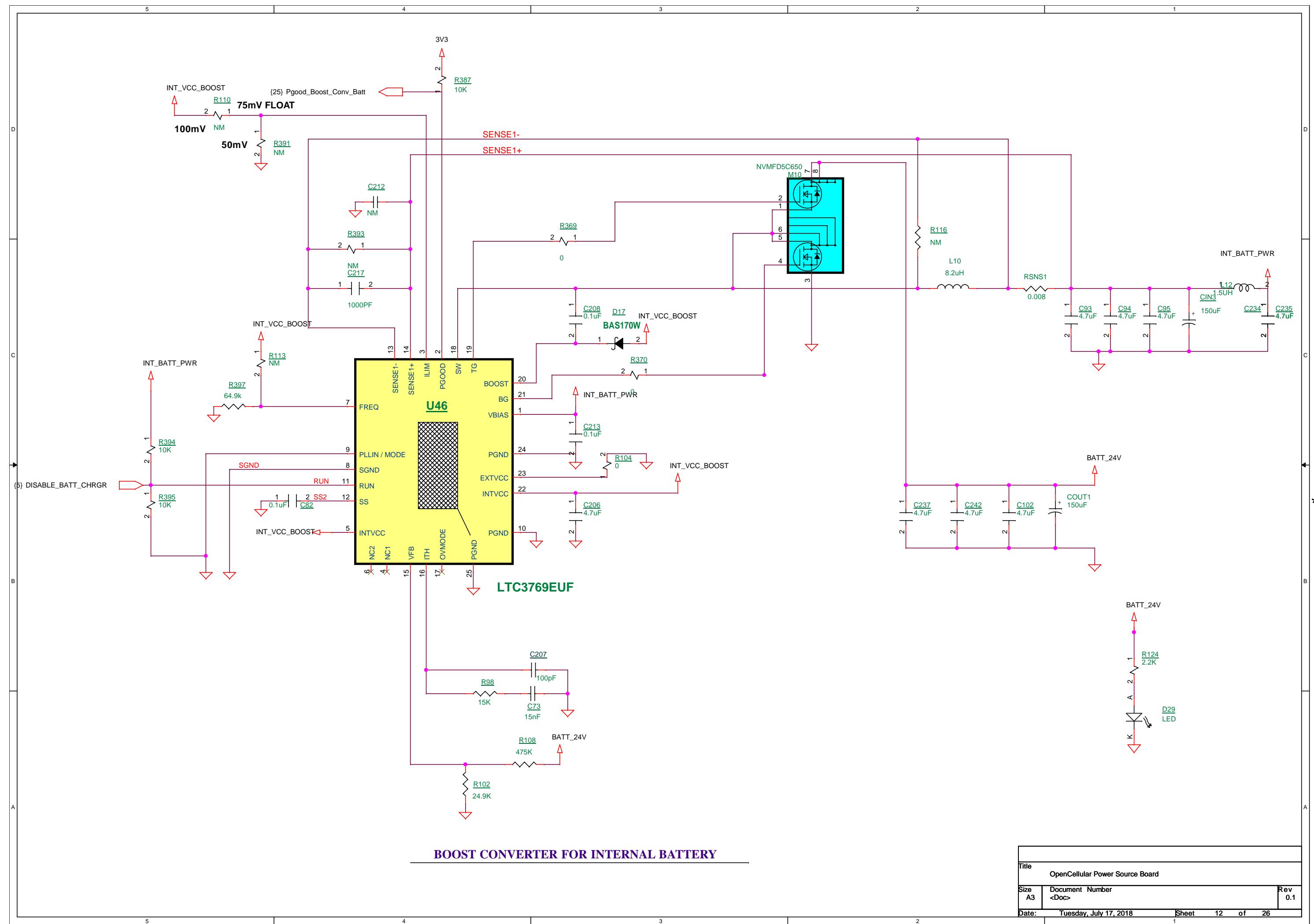
BUZZER CIRCUIT

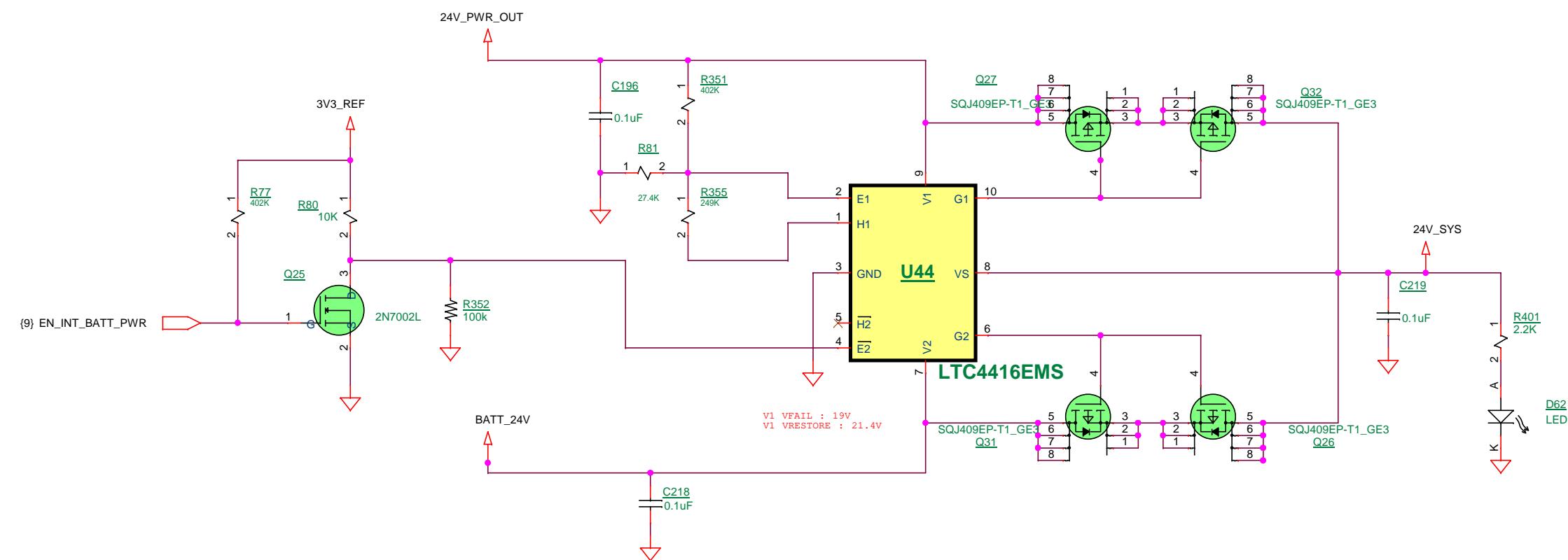


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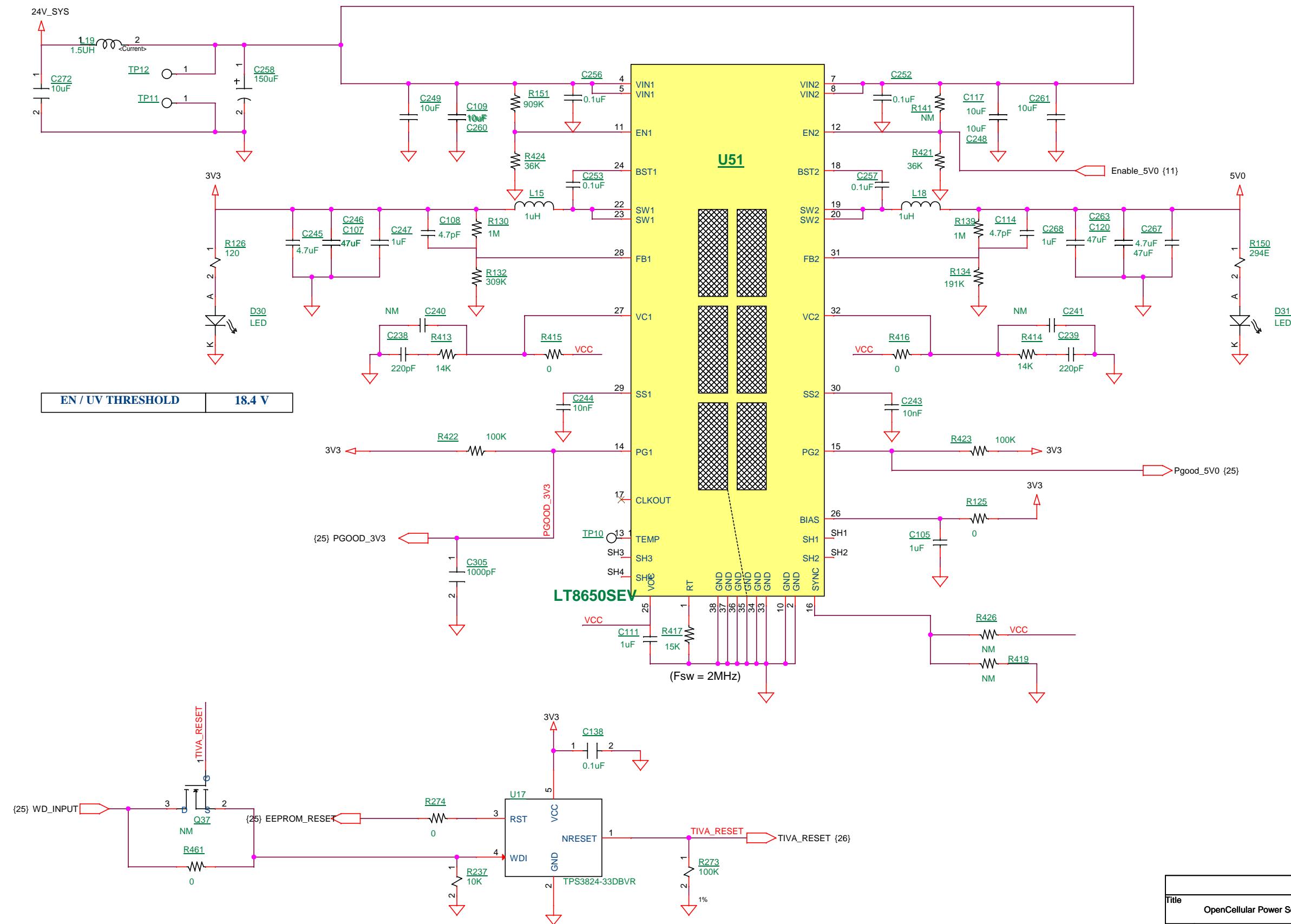
POWER PATH CONTROLLER

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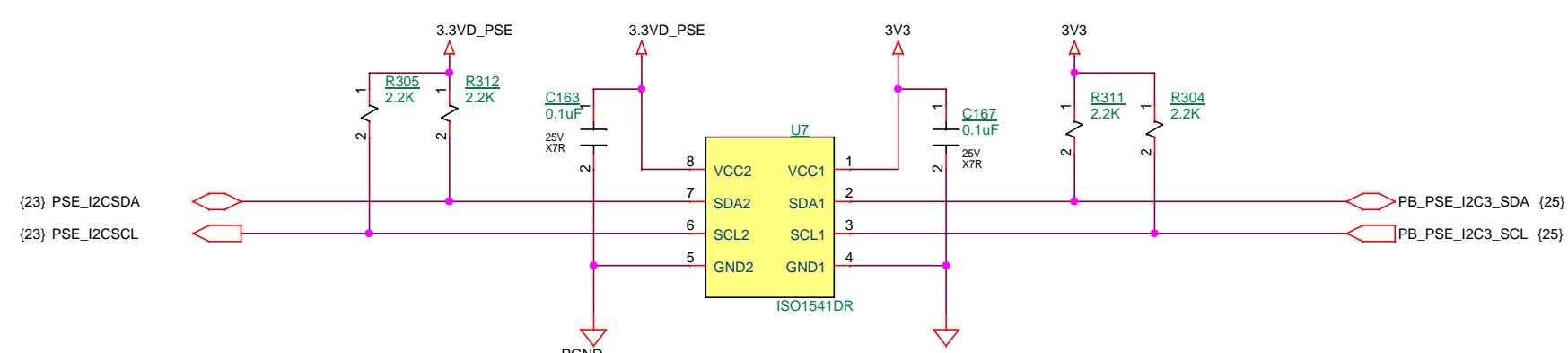
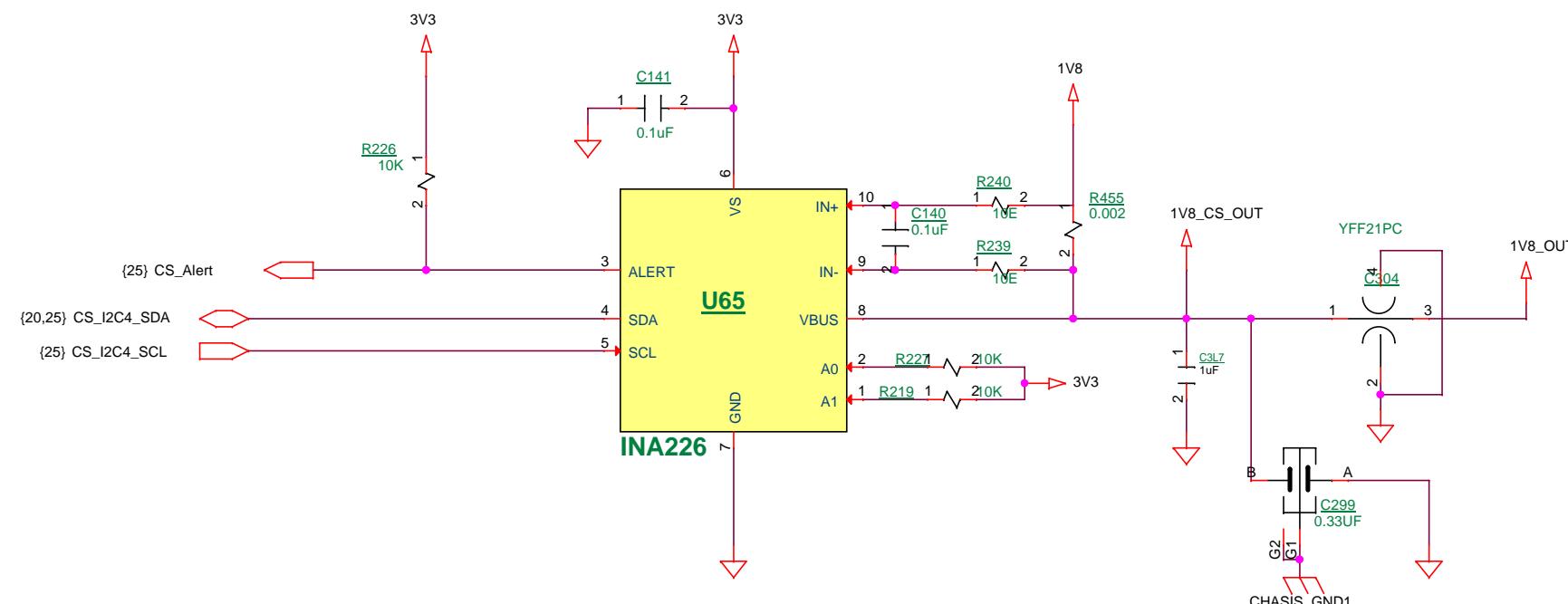
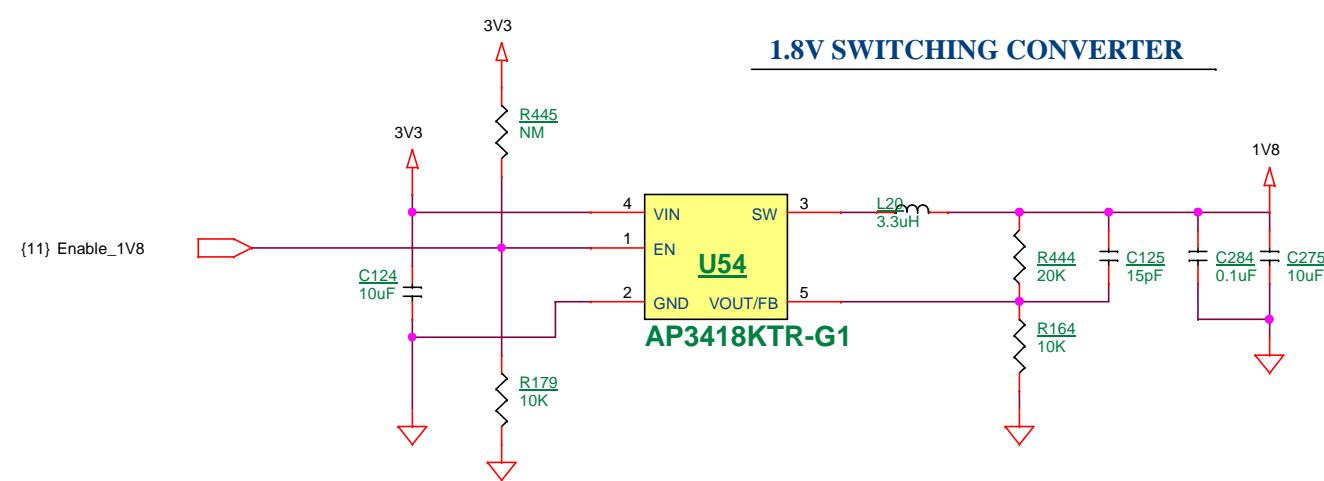
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3.3V AND 5V BUCK CONVERTER CIRCUITRY

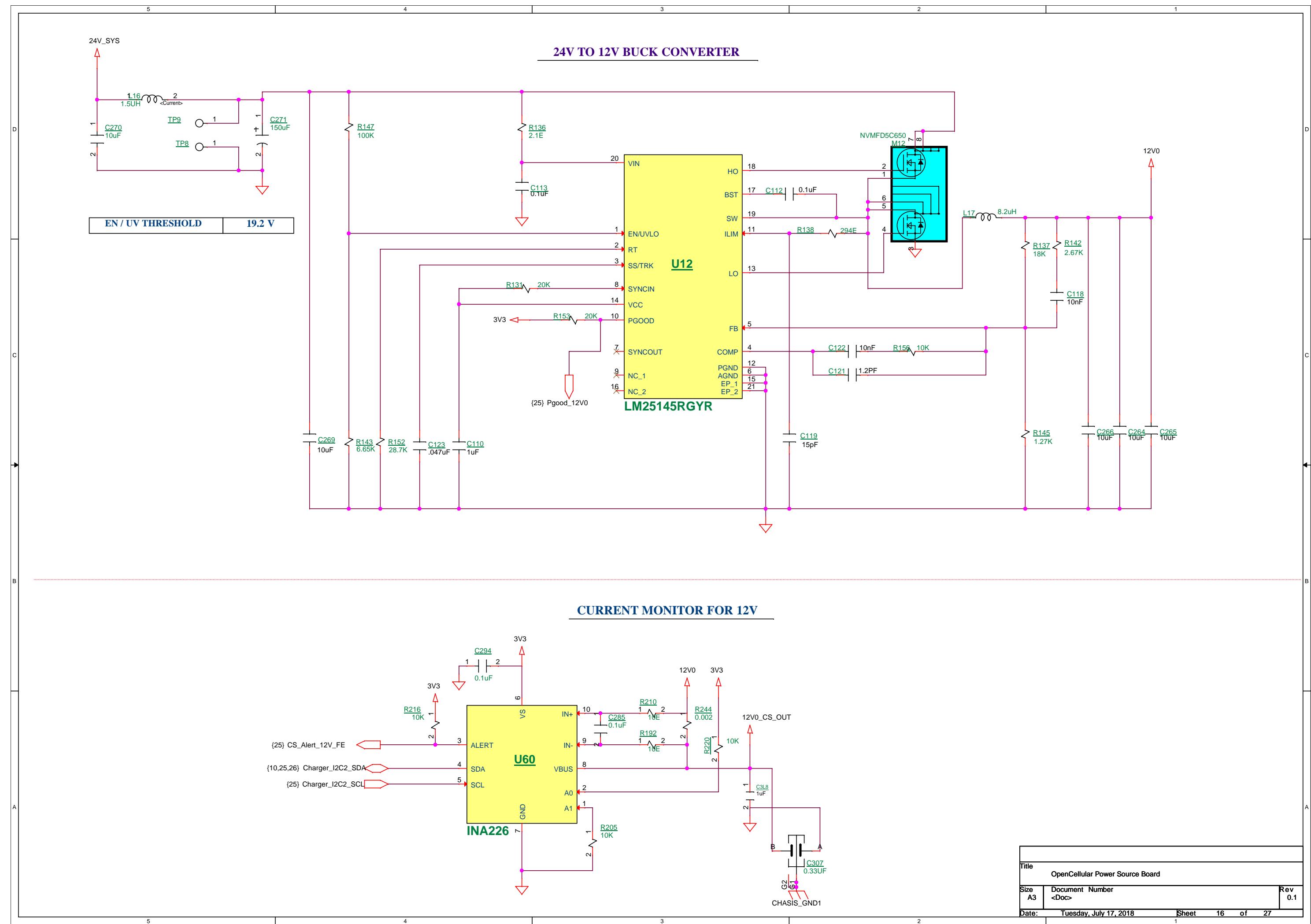


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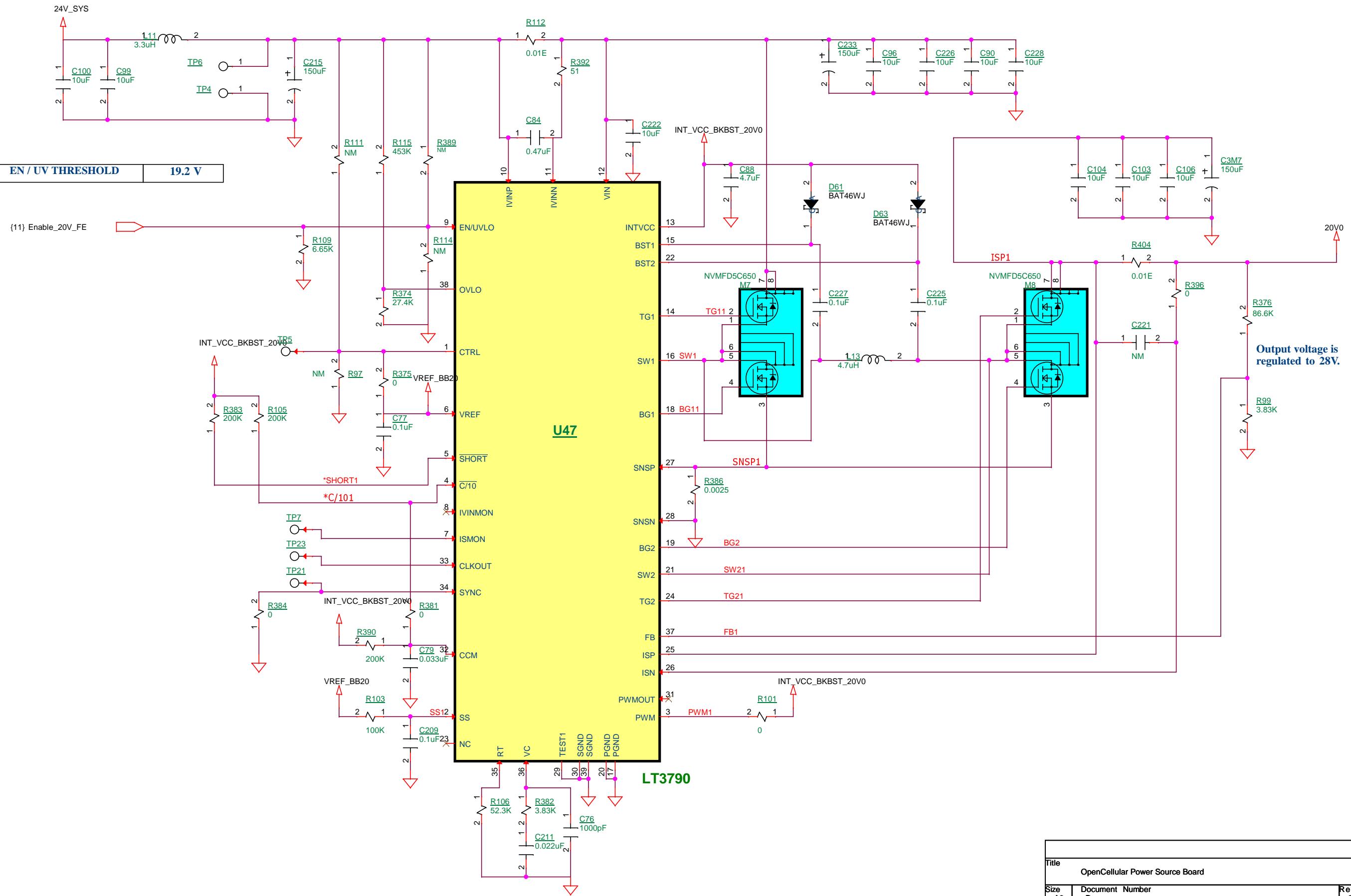


I2C ISOLATOR (INTERFACE BETWEEN UCONTROLLER & PSE CONTROLLER)

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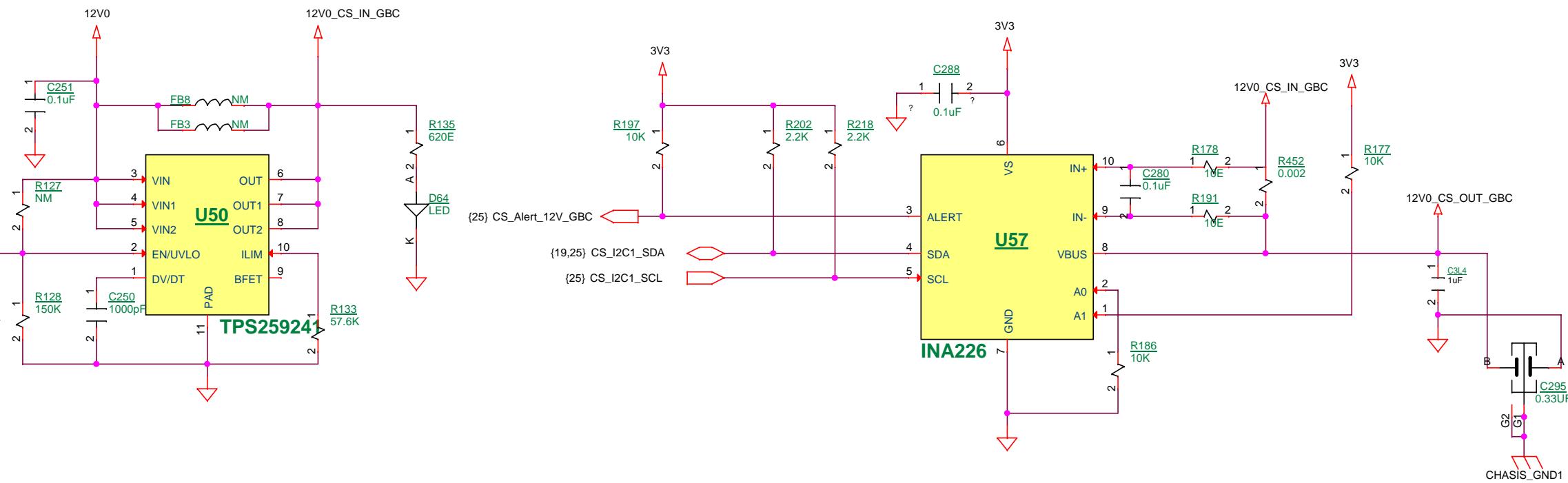


BUCK-BOOST CONVERTER FOR 28V GENERATION

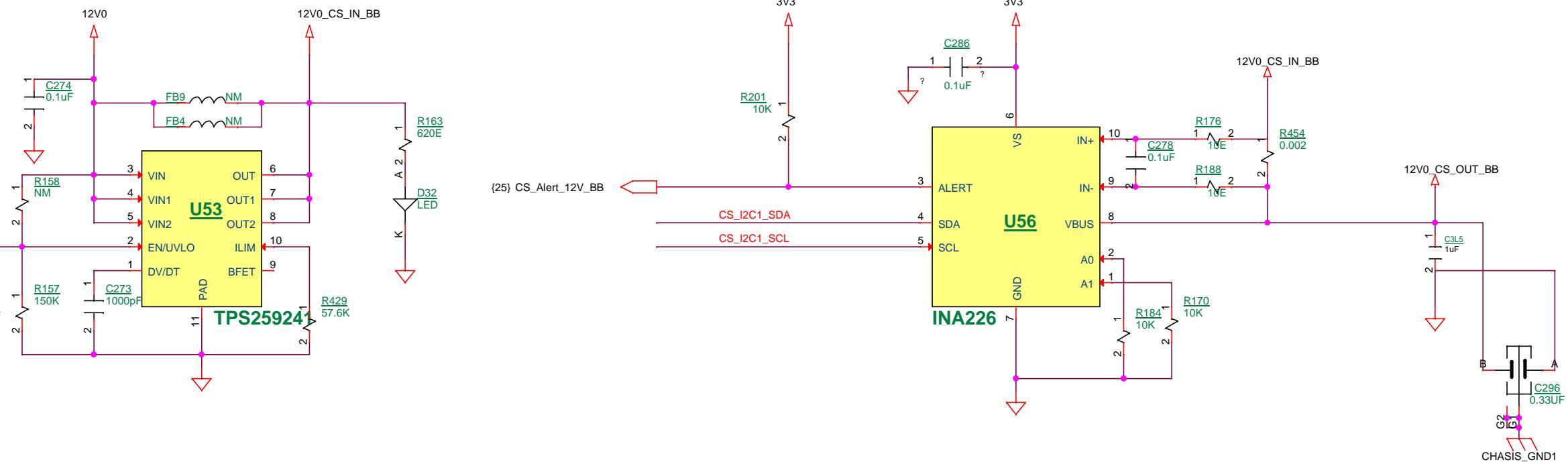


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LOAD SWITCH, POWER & CURRENT MONITOR FOR 12V OF GBC BOARD



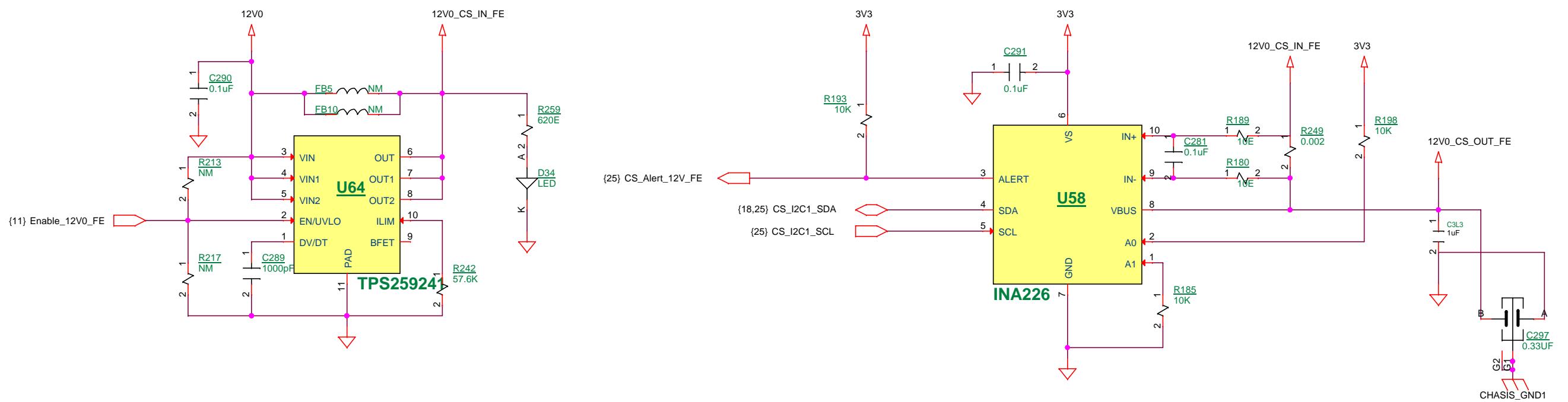
LOAD SWITCH, POWER & CURRENT MONITOR FOR 12V OF BB BOARD



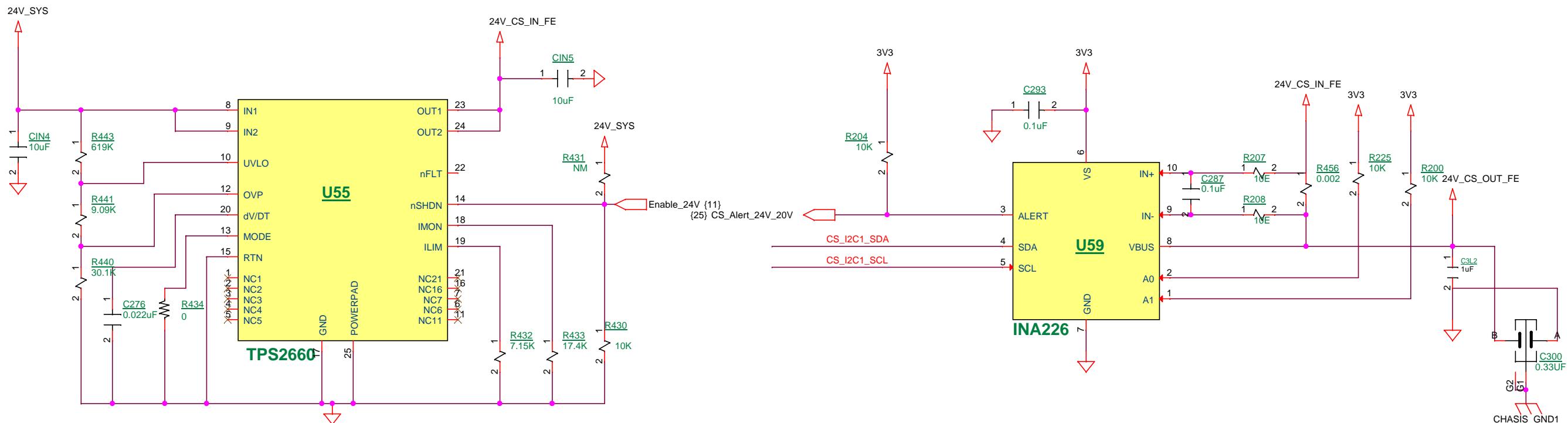
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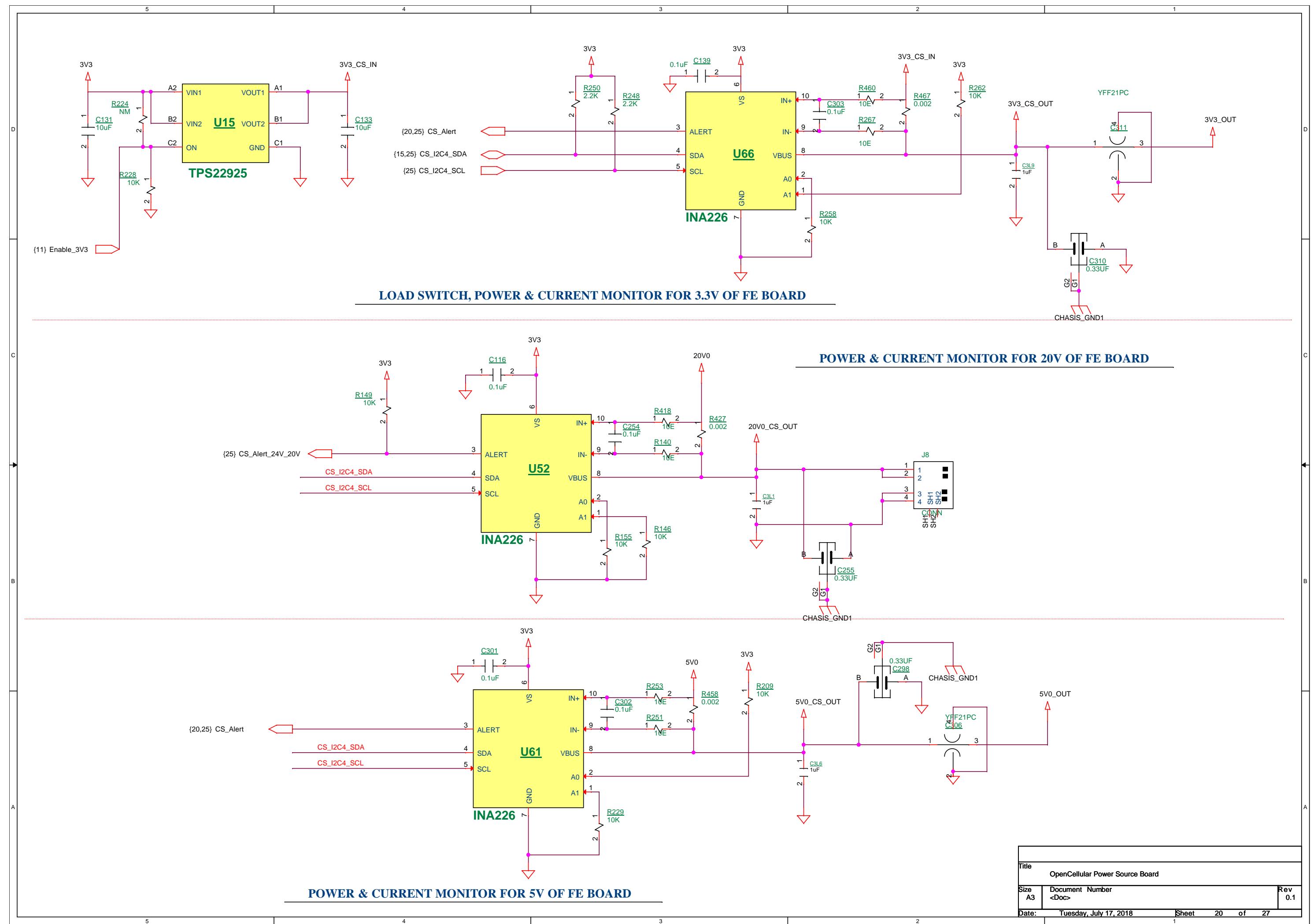
LOAD SWITCH, POWER & CURRENT MONITOR FOR 12V OF FE BOARD



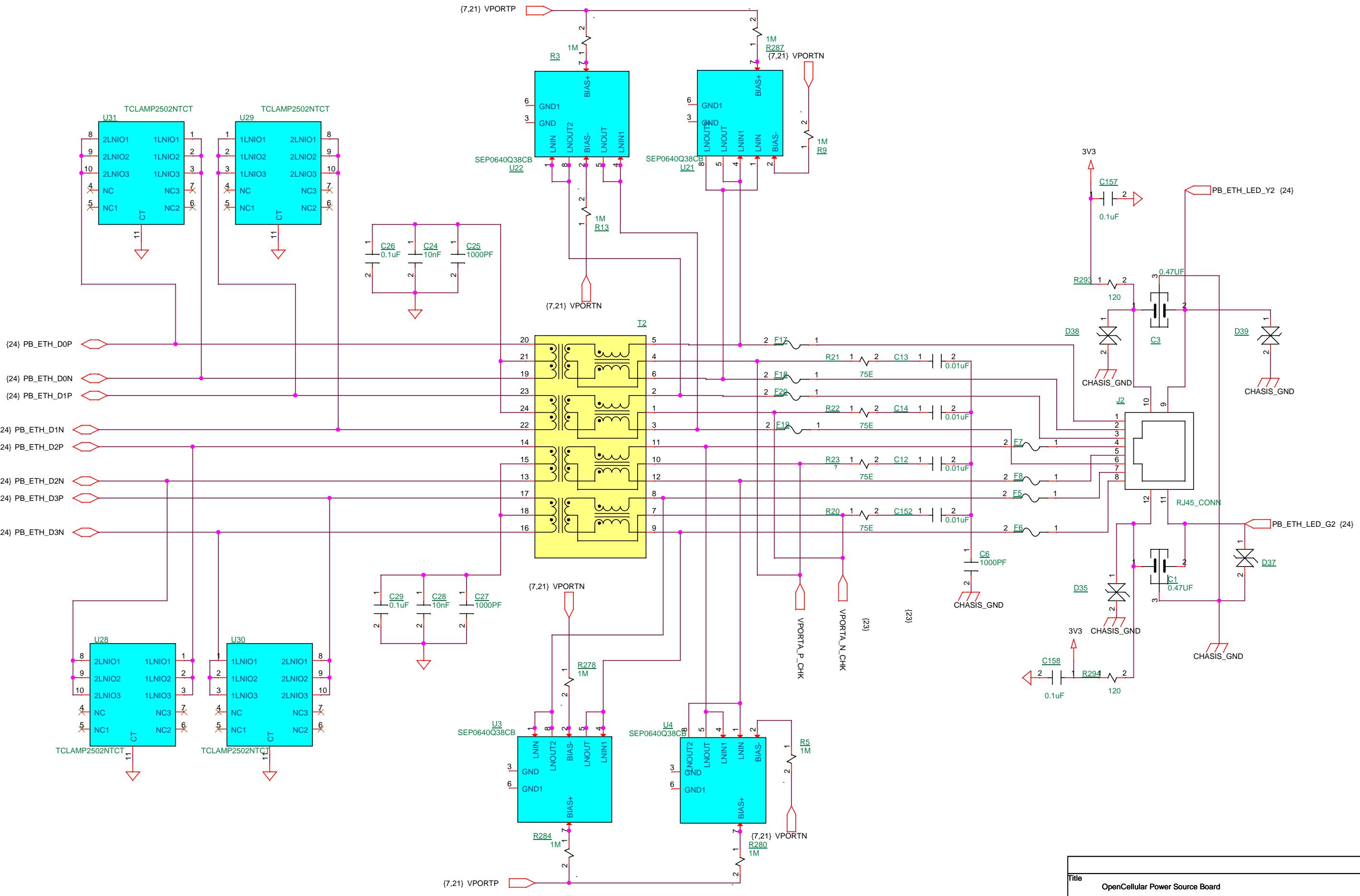
LOAD SWITCH, POWER & CURRENT MONITOR FOR 24V OF GBC BOARD



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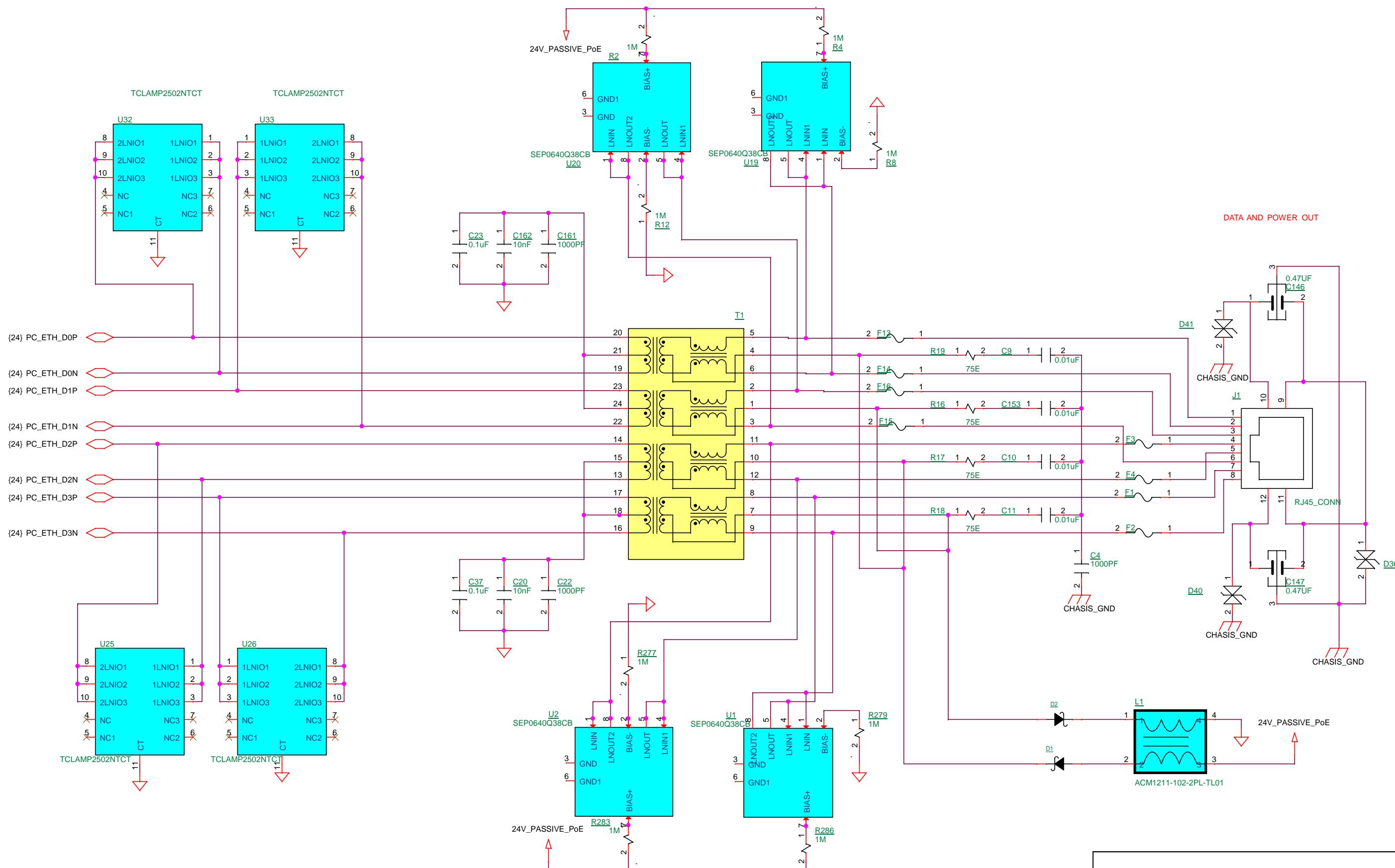
PoE PORT-B (ACTIVE PSE PORT) CONNECTOR SECTION



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"As per IEEE 802.3 isolation requirements line side protection component cannot be connected to chassis ground. Hence SEP devices(U203,U202) GND pins are floating."

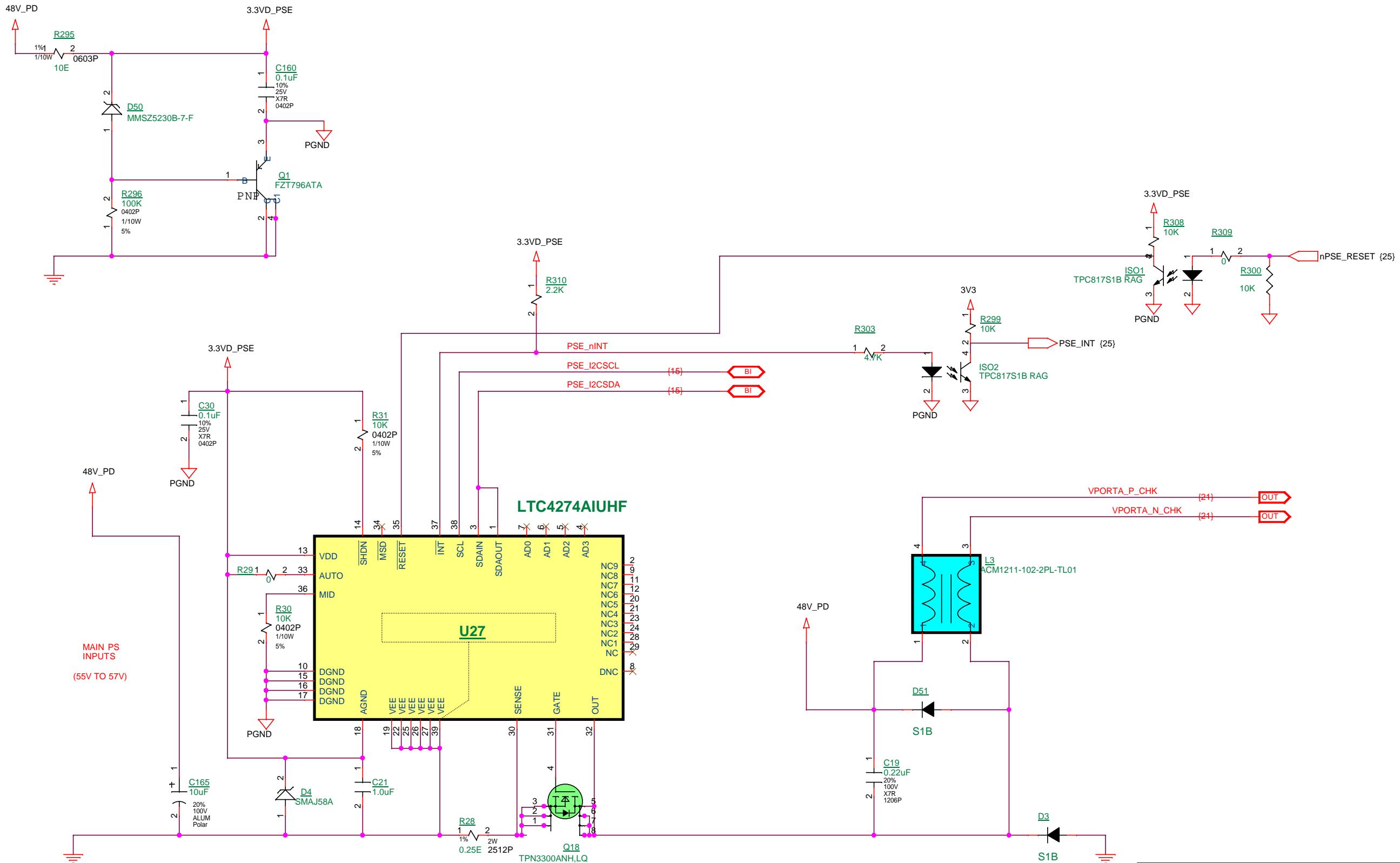
PoE PORT-C (PASSIVE PSE PORT) CONNECTOR SECTION



"As per IEEE 802.3 isolation requirements line side protection component cannot be connected to chassis ground.Hence SEP devices(U203,U202) GND pins are floating."

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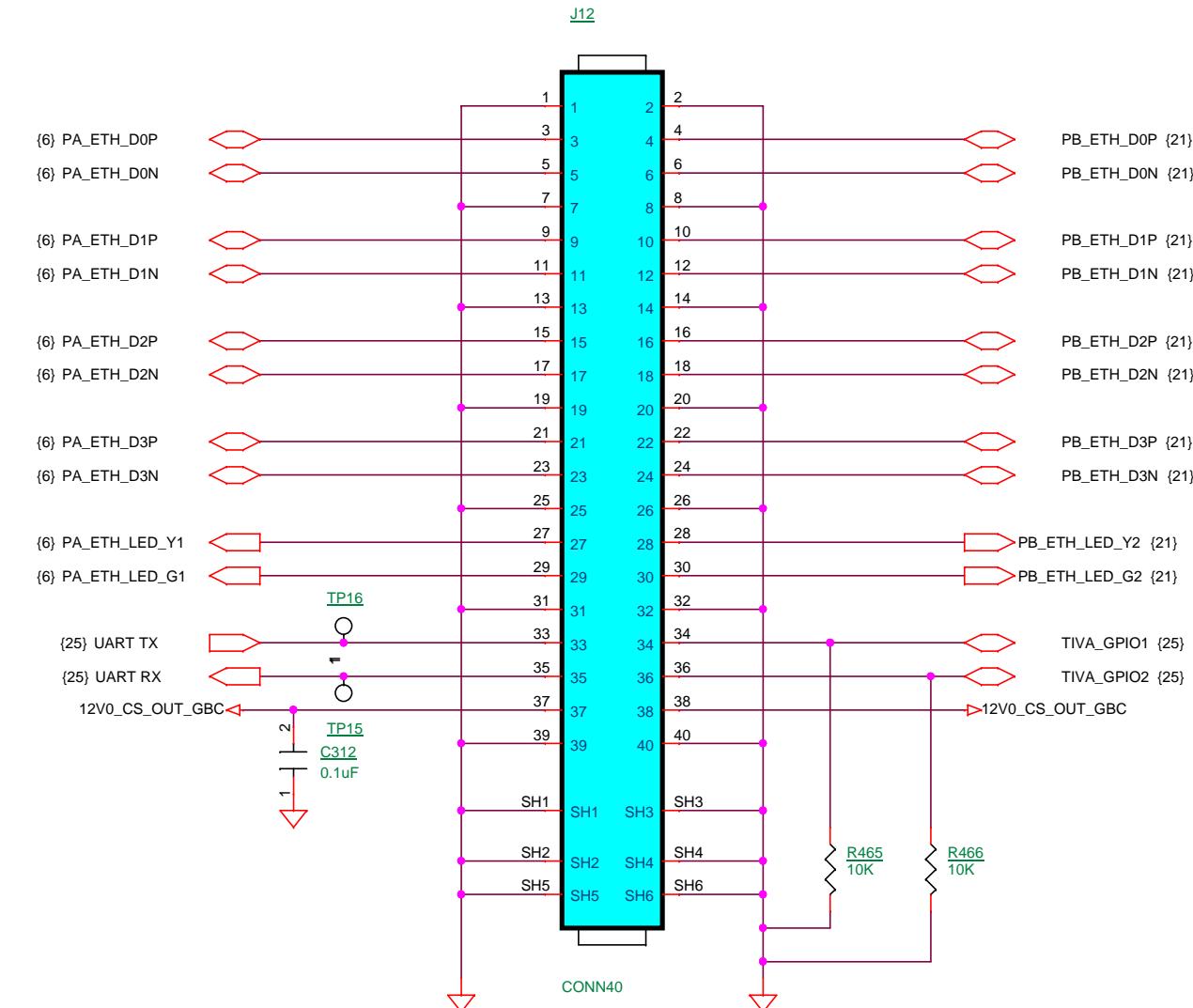
SINGLE PoE+ PSE CONTROLLER



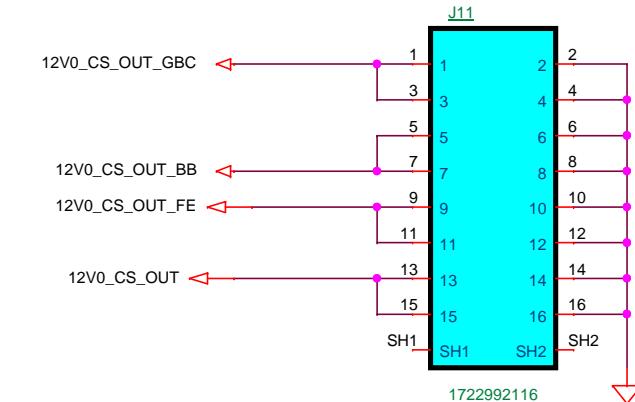
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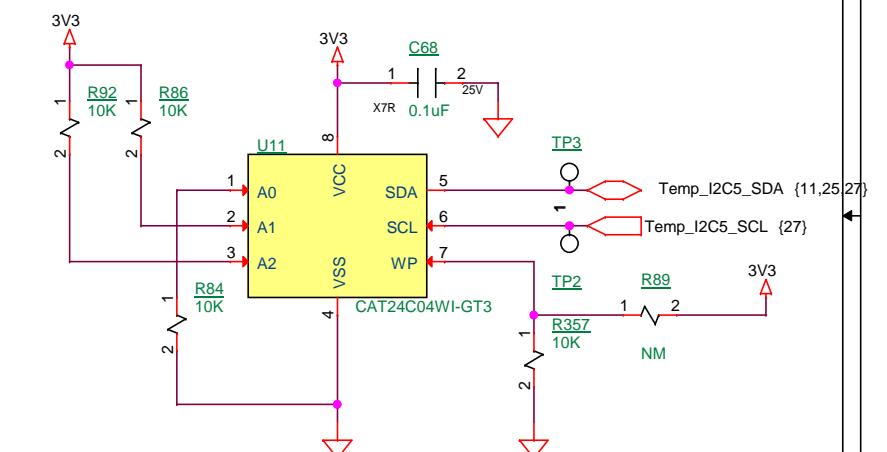
BOARD TO BOARD CONNECTOR (GBC INTERFACE)



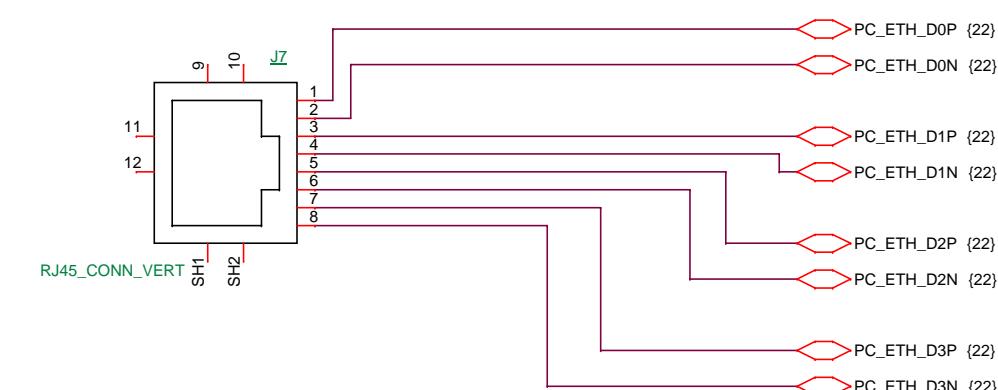
12V POWER CONNECTOR



EEPROM

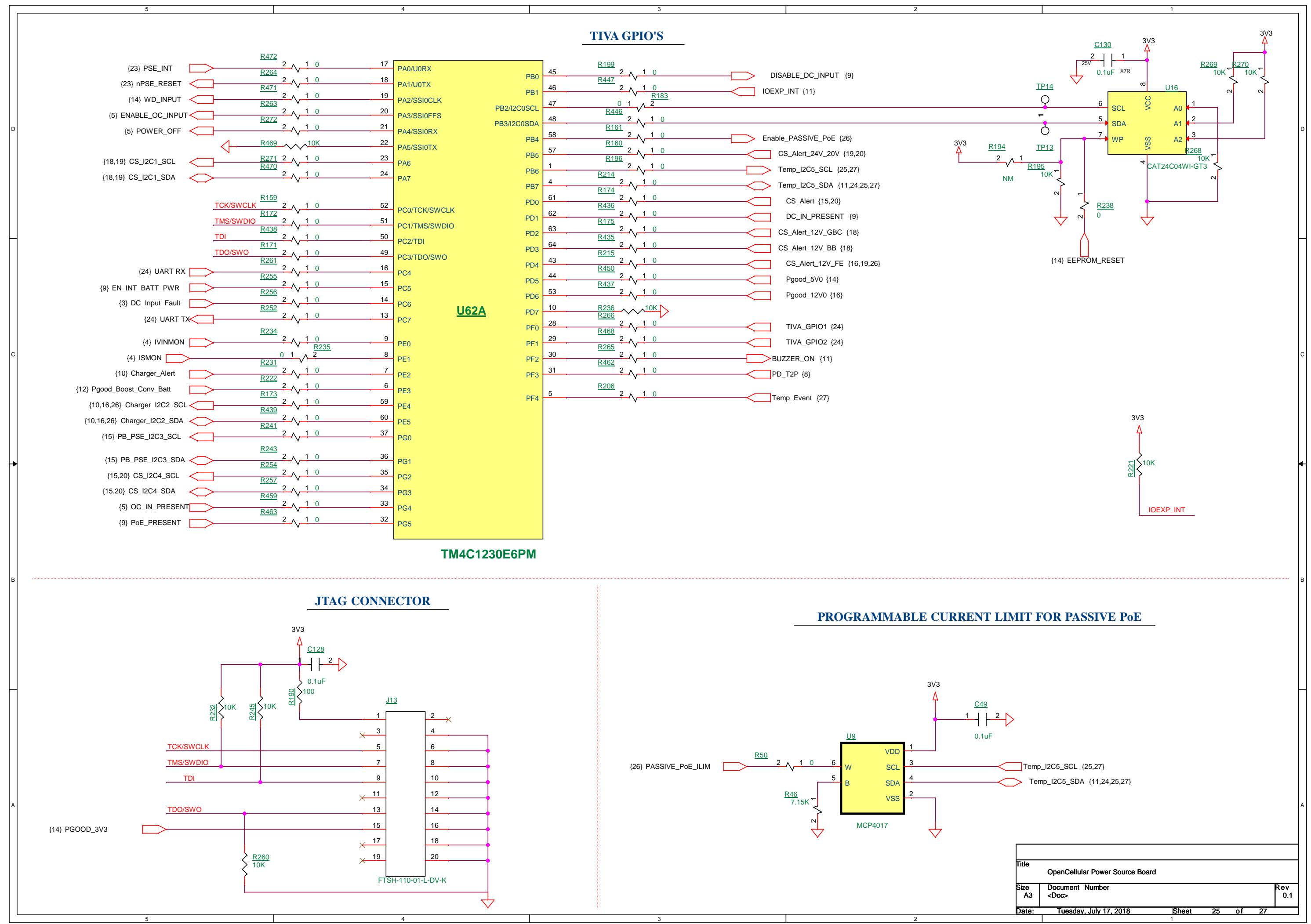


ETHERNET PORT-C CONNECTOR (INTERFACE TO GBC CARD)

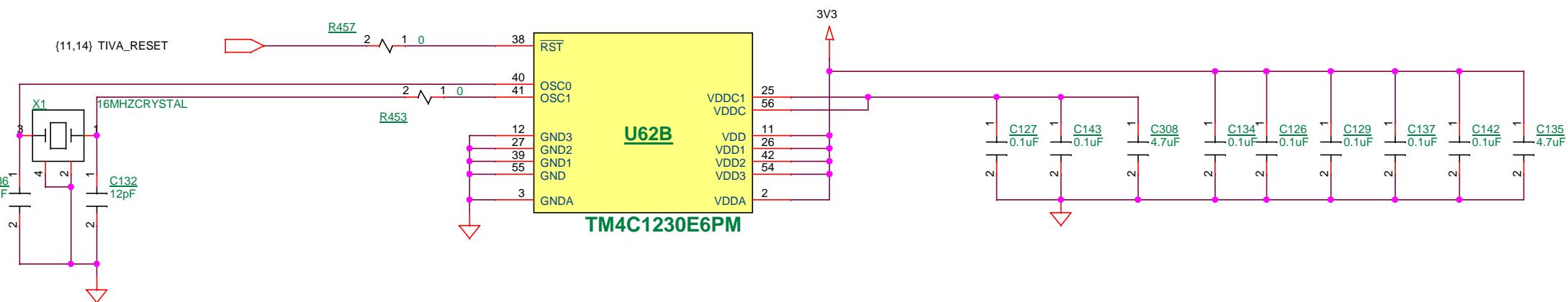


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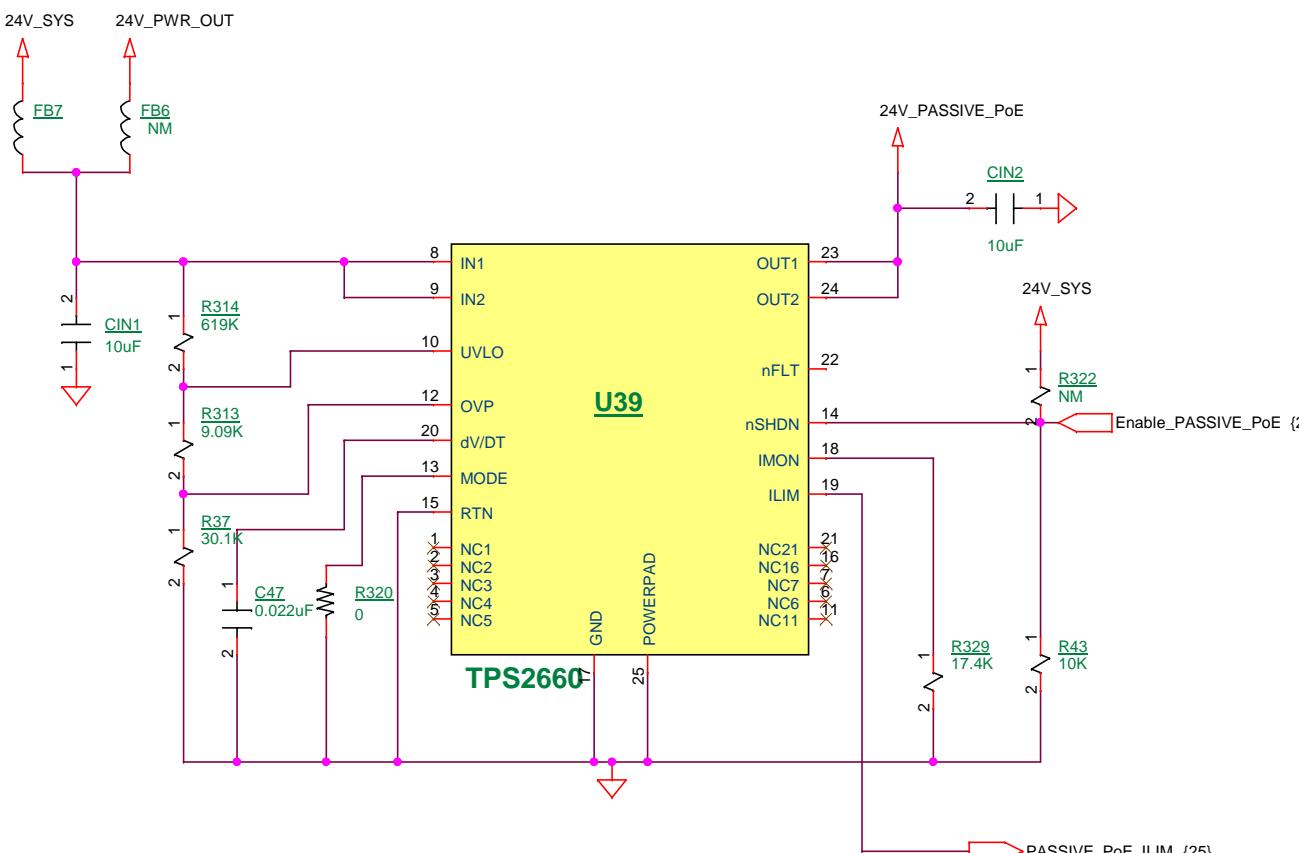
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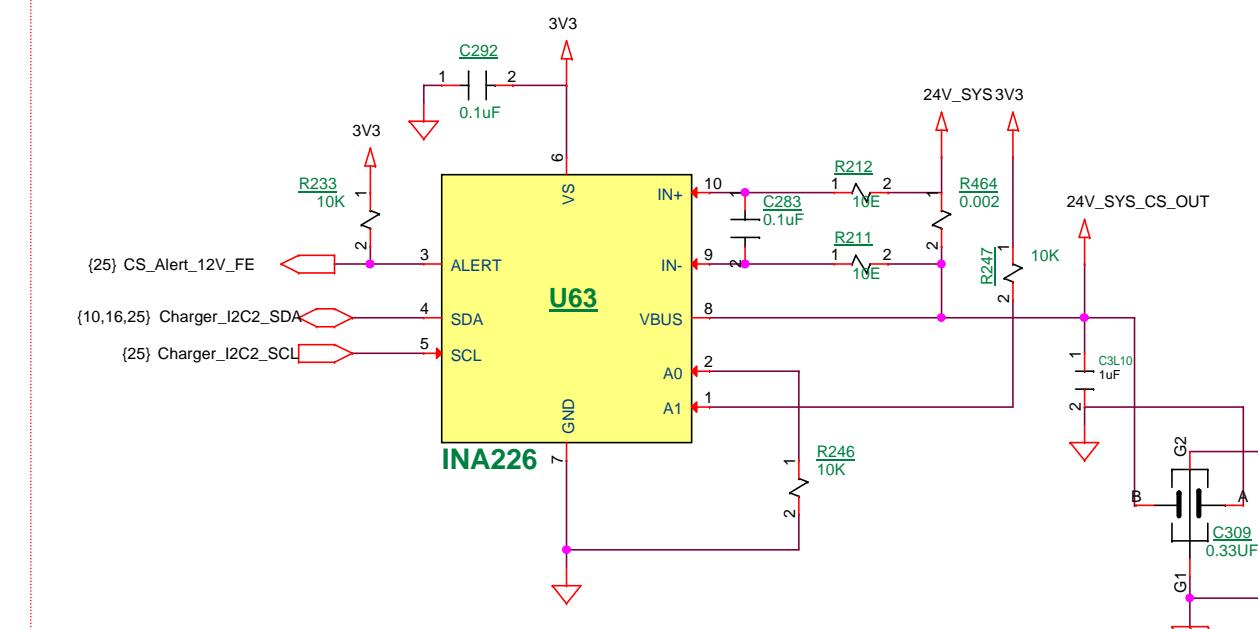
TIVA POWER AND RESET



LOAD SWITCH FOR PASSIVE PoE POWER

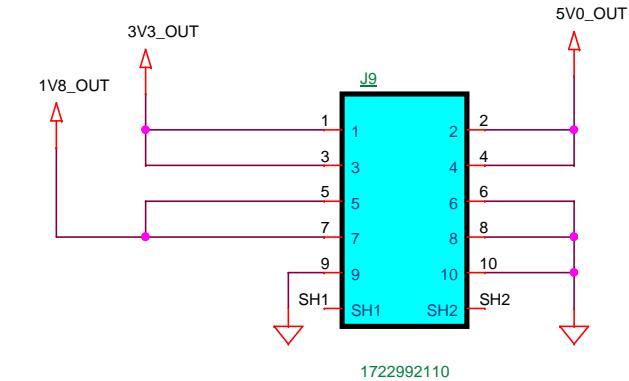
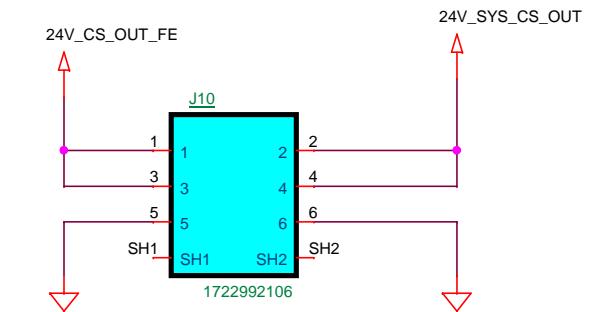
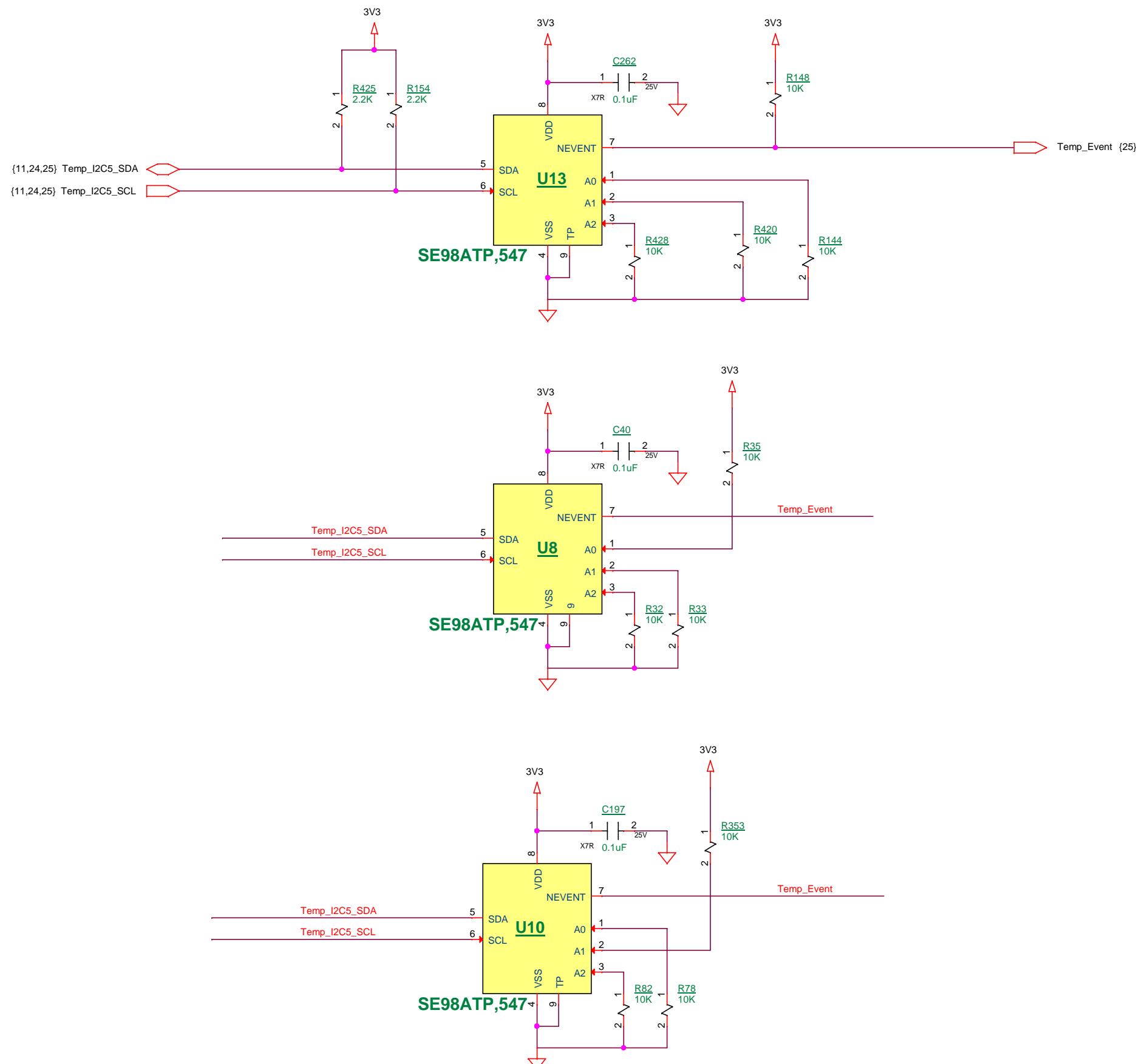


CURRENT MONITOR FOR 24V



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TEMPERATURE SENSORS



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