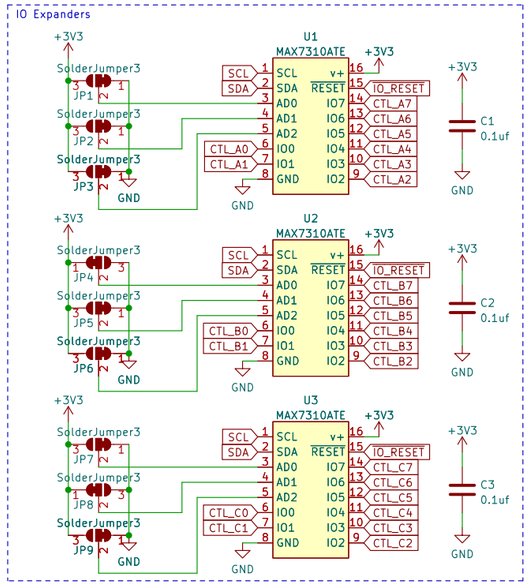
ICs

Connectors

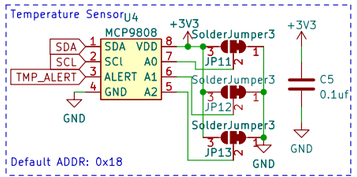
Pull Resistors

Power / Indicators

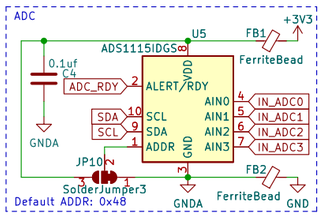
IO Expanders



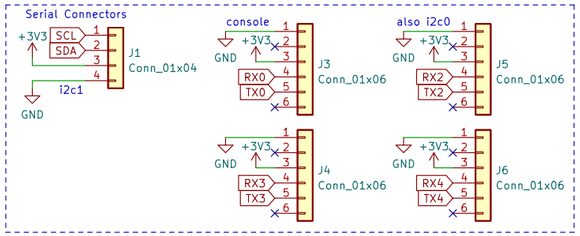
Temperature Sensor



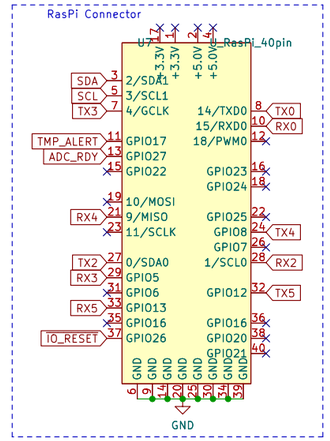
ADC



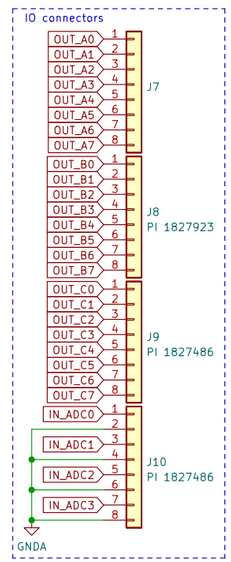
Serial Connectors



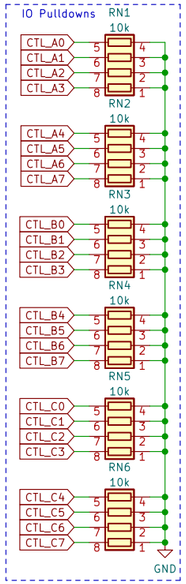
RasPi Connector



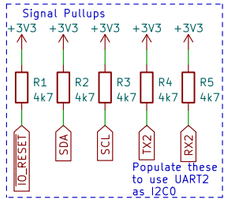
IO connectors



IO Pulldowns

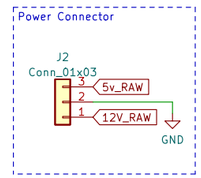


Signal Pullups

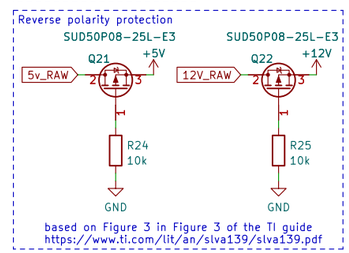


H1 MountingHole
H2 MountingHole
H3 MountingHole
H4 MountingHole

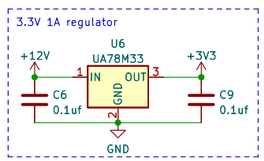
Power Connector



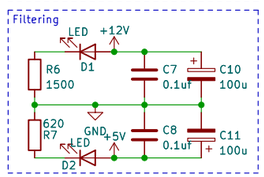
Reverse polarity protection



3.3V 1A regulator



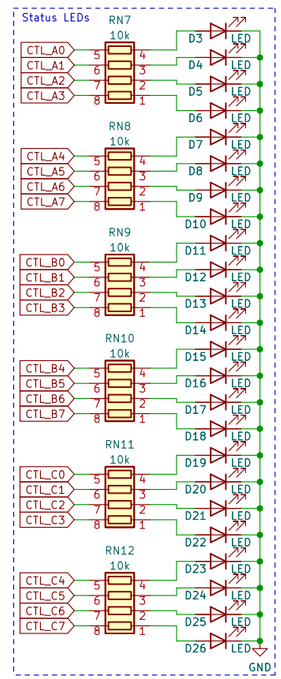
Filtering



power_switching

File: power_switching.kicad_sch

Status LEDs



Title: Uniclogs Power Distribution Board

Rev:

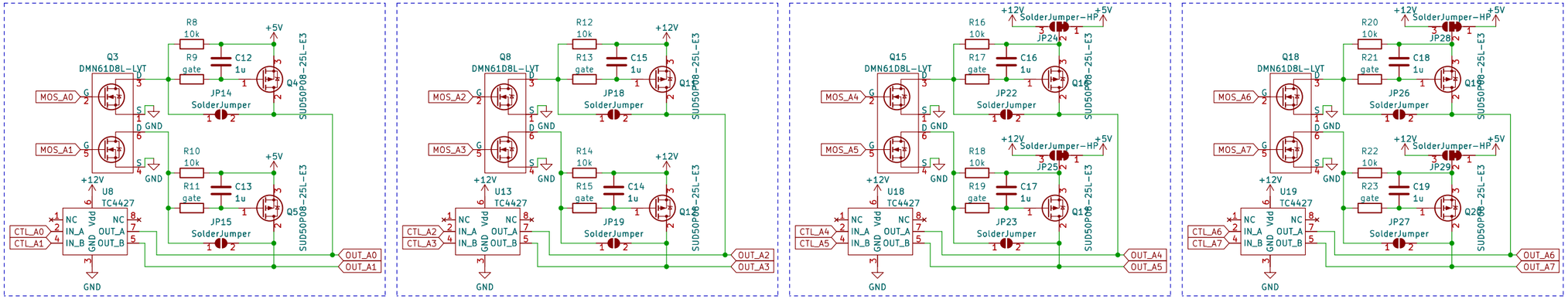
Contributors: ${CONTRIBUTOR}

Sheet: /

Id: 1/2

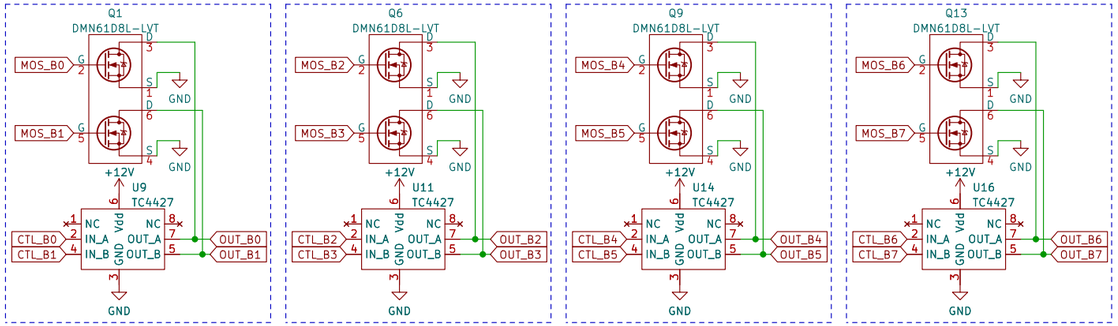
Bank A

Ranges: −500mA
±1.5A
+10A



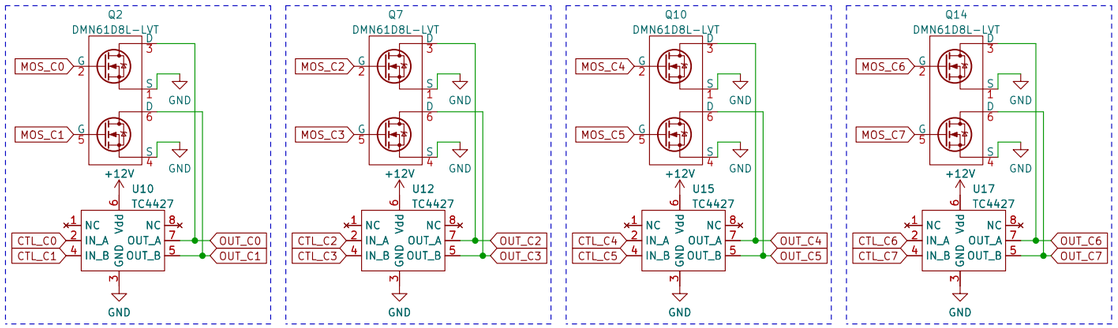
Bank B

Ranges: −500mA
±1.5A



Bank C

Ranges: −500mA
±1.5A

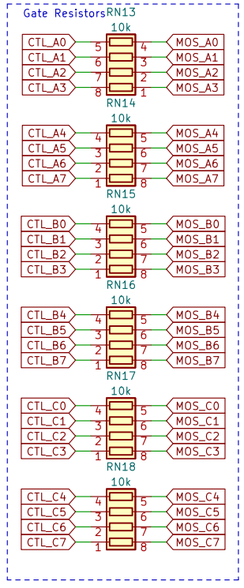


Channel Configuration Instructions:

Each channel or pair has several configurable output modes.
All channels can do the −500mA and ±1.5A ranges.
Only channel A can do the +10A with optional soft start range.

For Bank A:
- Never populate the dual MOSFET and the MOSFET driver on the same channel pair
- For the ±1.5A range: Populate the dual MOSFET driver only
- For the −500mA and +10A ranges:
  - Populate the dual MOSFET
  - The two channels in the pair may be configured independently
  - For the −500mA range: Jump the 2 position jumper for that channel
  - For the +10A range:
    - Populate the P-FET, the 10K resistor, and a 1k gate resistor
    - Jump the 3 position jumper to select the voltage
    - To add soft start: Use a 680k gate resistor and populate the capacitor

For Banks B and C:
- Never populate the dual MOSFET and the MOSFET driver on the same channel pair
- For the −500mA range: Populate the dual MOSFET only
- For the ±1.5A range: Populate the dual MOSFET driver only



Title:

Rev:

Contributors: ${CONTRIBUTOR}

Sheet: /power_switching/
Id: 2/2