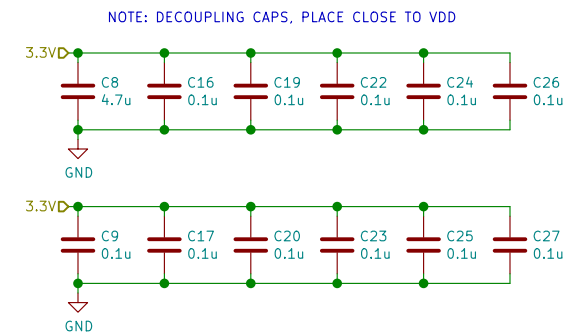
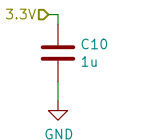


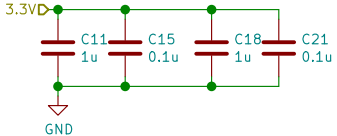
STM32H7 MICROCONTROLLER



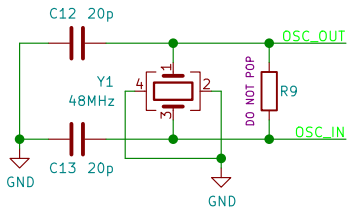
NOTE: DECOUPLING CAPS, PLACE CLOSE TO VDD33_USB



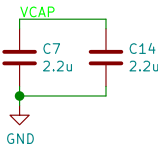
NOTE: DECOUPLING CAPS, PLACE CLOSE TO VDDA



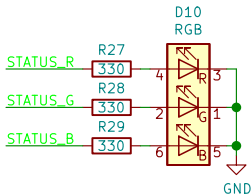
NOTE: PLACE CRYSTAL CLOSE TO OSC_OUT/OSC_IN



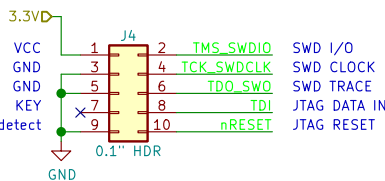
NOTE: DECOUPLING CAPS, PLACE CLOSE TO VCAP1/VCAP2



RGB STATUS LED



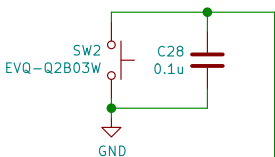
JTAG/SERIAL WIRE DEBUG



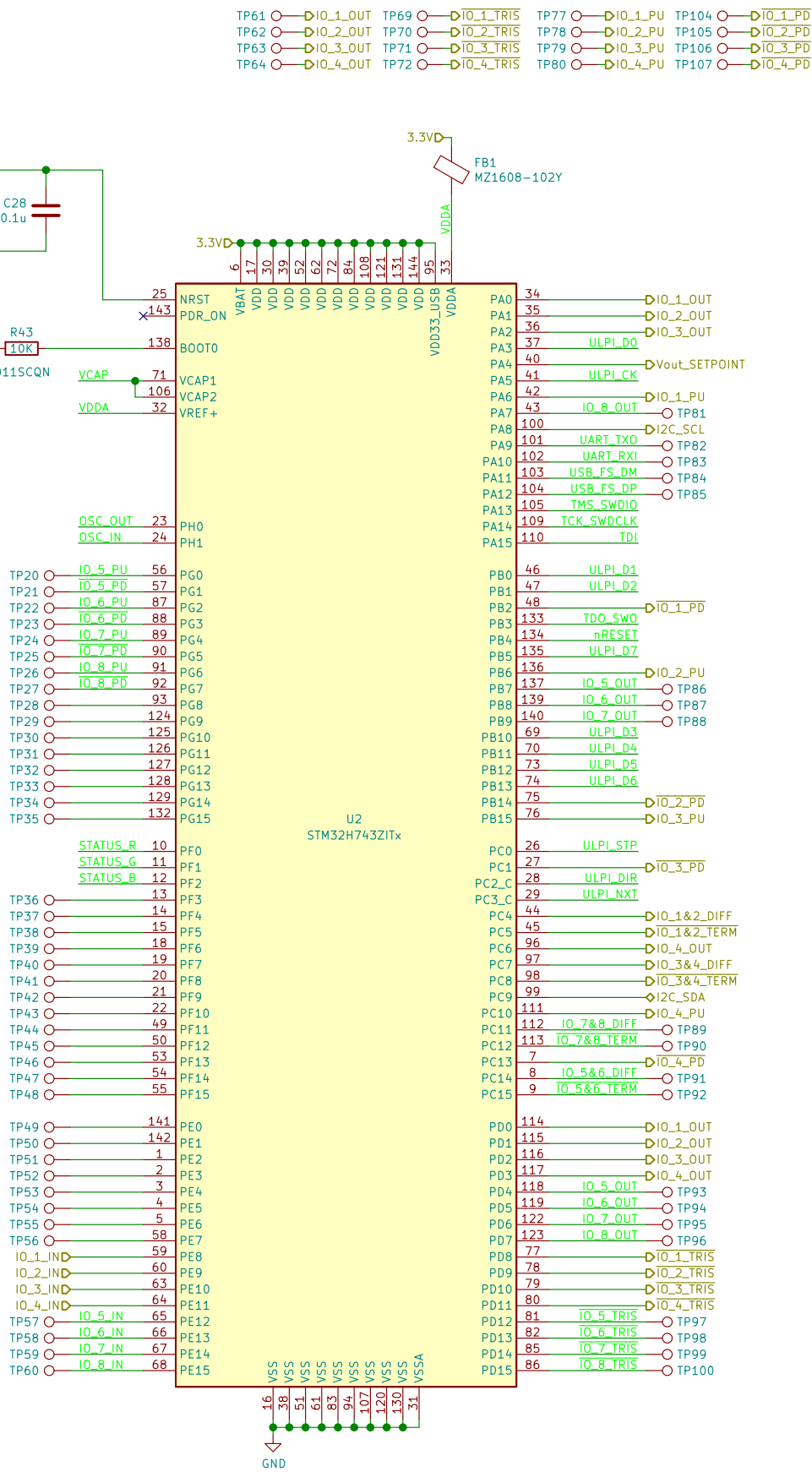
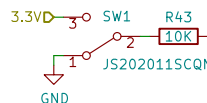
MCU ALTERNATE PIN FUNCTIONS:

- PA0: TIM2_CH1
- PA1: TIM5_CH2
- PA2: TIM15_CH1
- PA4: DAC_OUT1
- PA7: TIM14_CH1
- PA8: I2C1_SCL
- PA9: USART1_TX
- PA10: USART1_RX
- PB7: TIM4_CH2
- PB8: TIM16_CH1
- PB9: TIM17_CH1
- PC6: TIM3_CH1
- PC9: I2C1_SDA

RESET BUTTON



BOOT SWITCH



3.3-15V ADJUSTABLE REGULATOR

INPUT (1.2-14V)

Vin

DO NOT POP

C40

C41 10u

R47 220K

3.3V

C42 0.1u

U4 LM2621

VDD EN BOOT SW FREQ FB PGND

L1 82u

SRF0703-820M

TP108

C43 1u

TP109

D13 NSR0530HT1G

R48 110K

C44 33p

DO NOT POP

C45

C46 10u

TP111

Vout

SETPOINT

R49 10K

TP110

Vdac = 0 ~ 1.2V

Vout = 12 * (1.24V - Vdac) + Vdac

TARGET DEVICE SUPPLY (3.3-15V ADJ, 100mA MAX)

DT18 - I/O MASTER

THE UNIVERSITY OF AKRON

Sheet: /Adjustable Regulator/
File: Adjustable Regulator.sch

Title: 3.3-15V ADJUSTABLE REGULATOR

Size: B	Date: 2020-02-05	Rev: A
KiCad E.D.A. kicad 5.1.5		Id: 3/10

DT18 - I/O MASTER
THE UNIVERSITY OF AKRON
 Sheet: /Adjustable Regulator/
 File: Adjustable Regulator.sch
Title: 3.3-15V ADJUSTABLE REGULATOR

Size: B	Date: 2020-02-05	Rev: A
KiCad E.D.A. kicad 5.1.5		Id: 3/10

Title: 3.3-15V ADJUSTABLE REGULATOR

Size: B	Date: 2020-02-05	Rev: A
KiCad E.D.A. kicad 5.1.5		Id: 3/10

1	2	3	4	5	6	7	8	
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B

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5	6	7	8	
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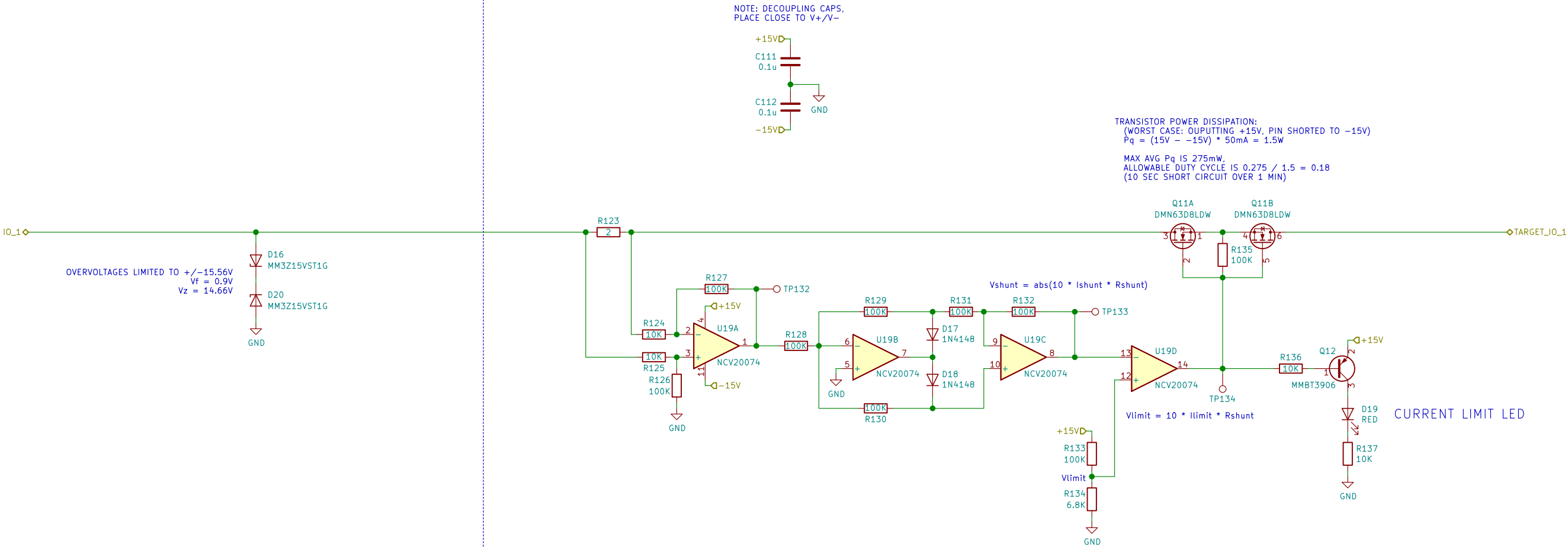
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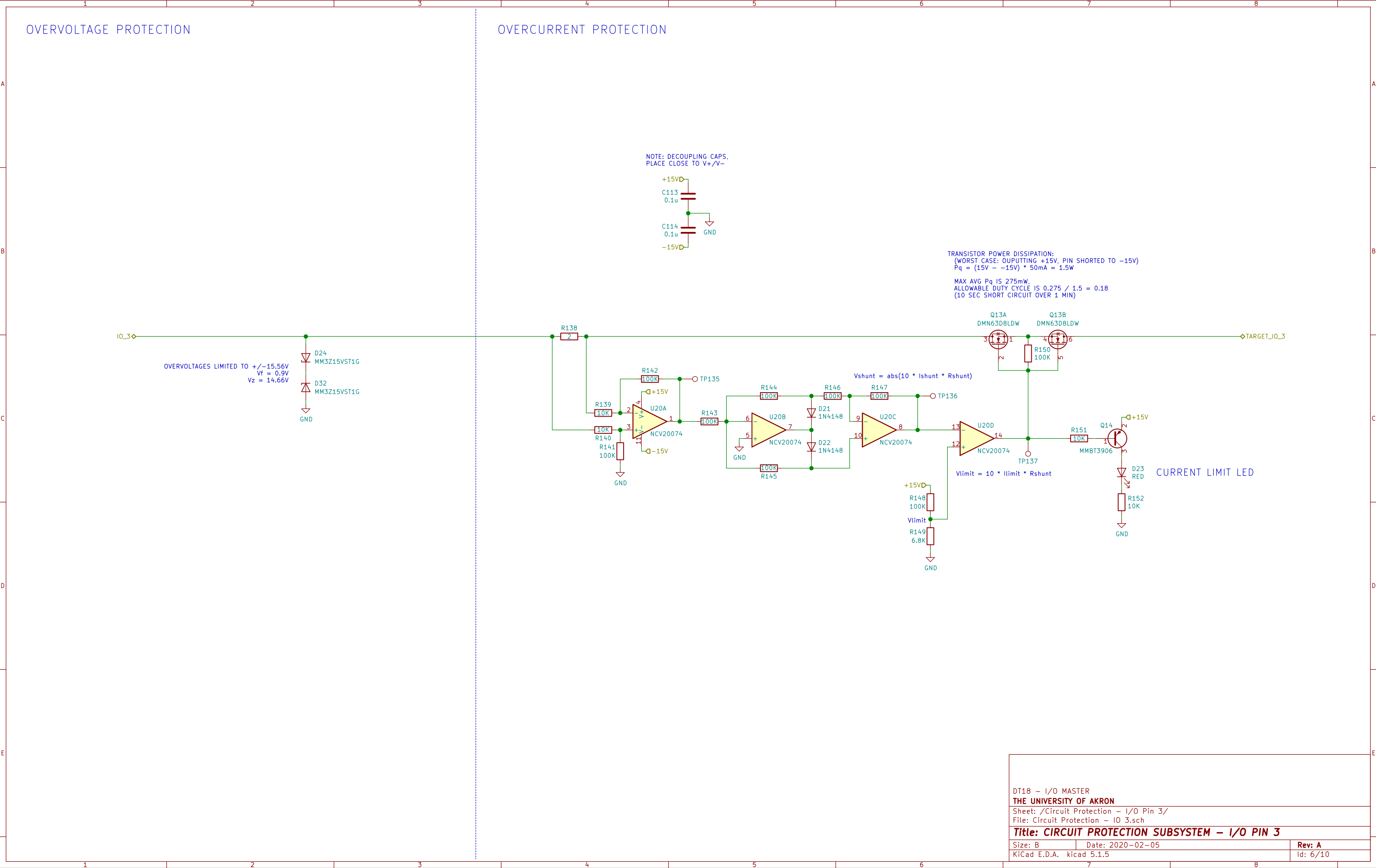
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OVERVOLTAGE PROTECTION

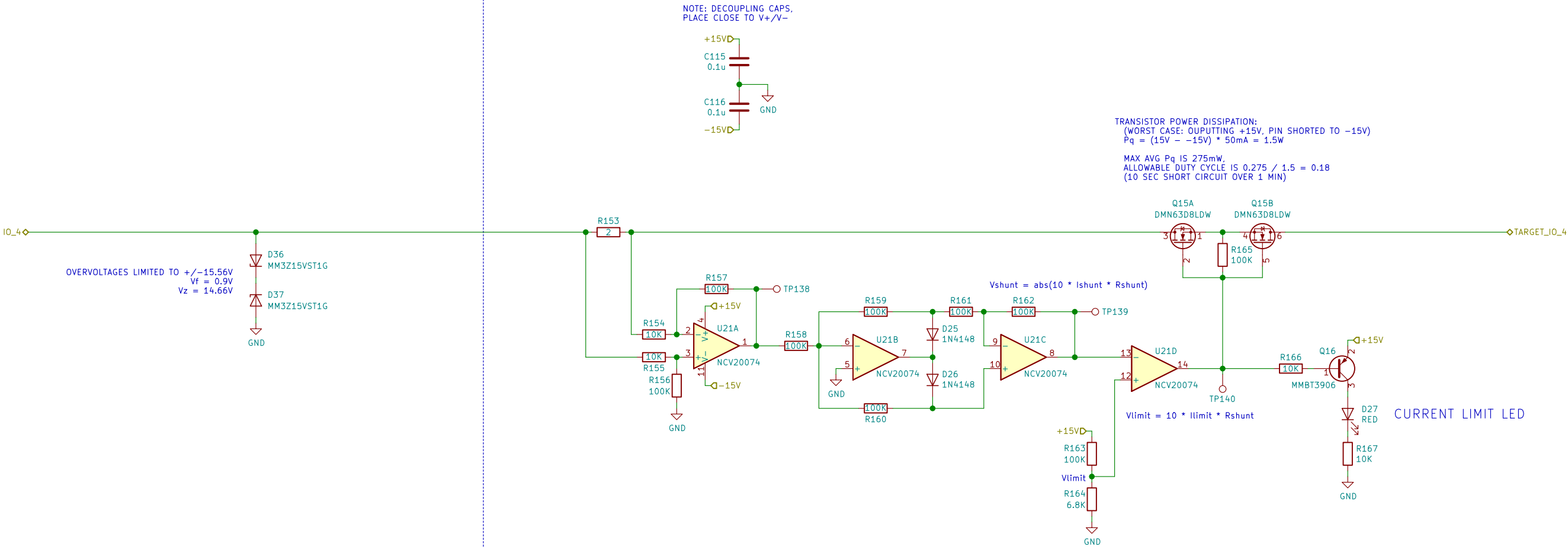
OVERCURRENT PROTECTION



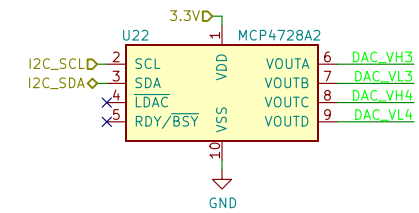


OVERVOLTAGE PROTECTION

OVERCURRENT PROTECTION



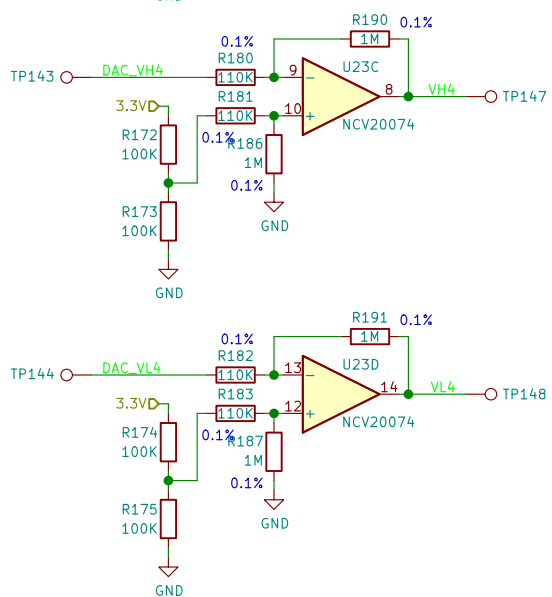
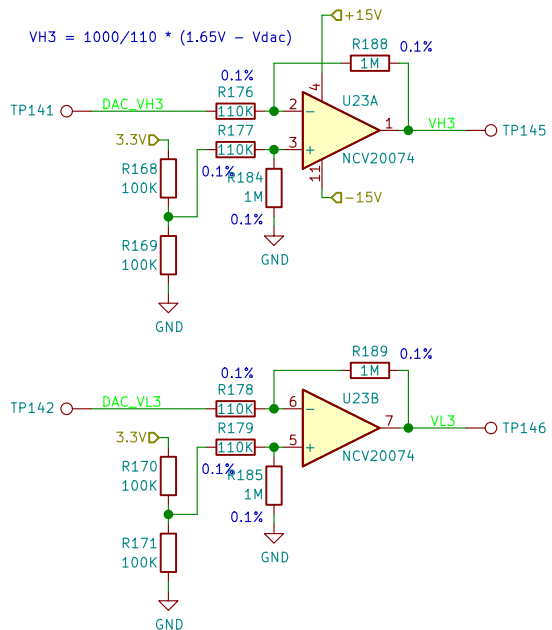
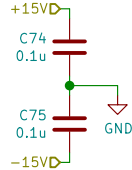
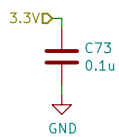
LOGIC LEVEL GENERATOR



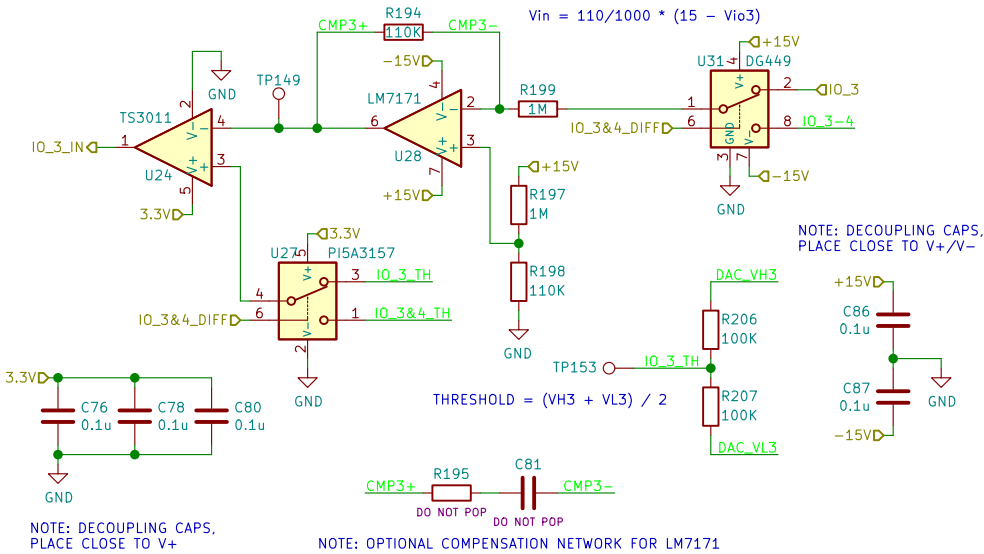
NOTE: P/N MCP4728A2 IS PRE-PROGRAMMED WITH I2C ADDRESS 0b1100010

NOTE: DECOUPLING CAP.
PLACE CLOSE TO VDD

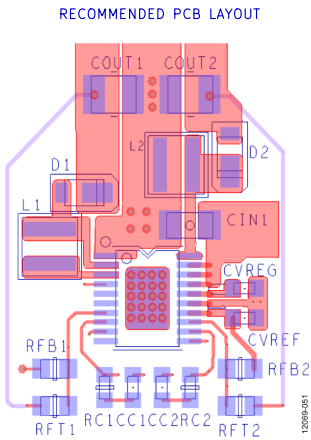
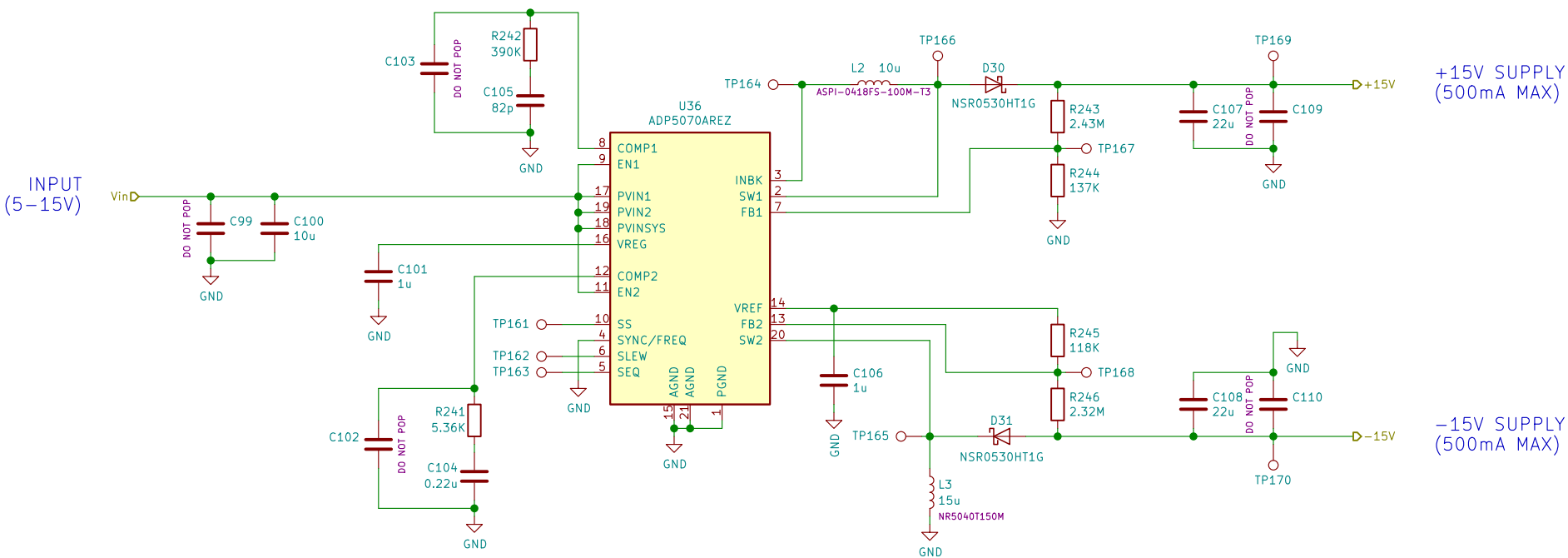
NOTE: DECOUPLING CAPS.
PLACE CLOSE TO V+/V-



SINGLE-ENDED RECEIVER (I/O PIN 3)



+/-15V REGULATOR



OVERVOLTAGE PROTECTION

OVERCURRENT PROTECTION

