

# Duet3 Closed Loop Board 1HCE

## 1 TMC 2160

Sheet: Processor

Processor

File: Processor.sch

Sheet: Stepper Driver & Endstops

Stepper  
IO  
FETs  
Comms  
Encoder

File: Stepper\_Drv.sch

Sheet: Headers

Headers

File: Headers.sch

Sheet: Power

Power

File: Power.sch

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**Duet3D**

Sheet: /

File: Duet3\_Exp\_1HCL.sch

**Title: Duet 3 Expansion 1HCL**

Size: A4

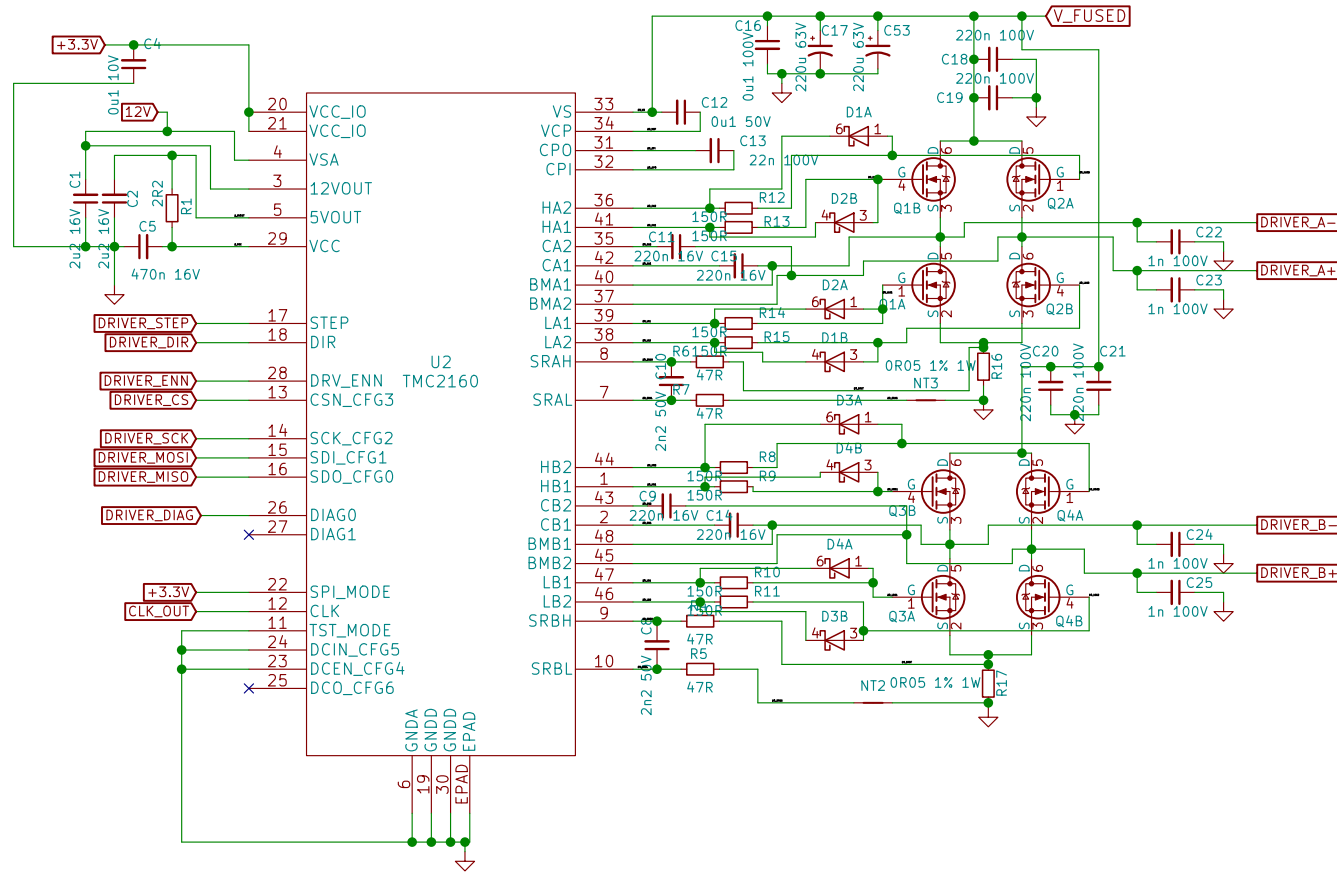
Date: 2021-10-27

Rev: 1.0

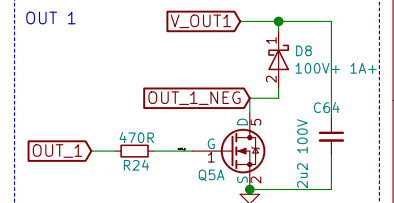
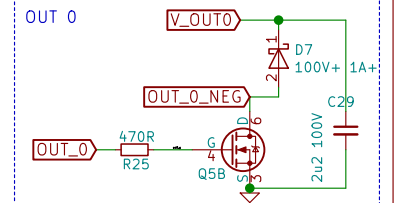
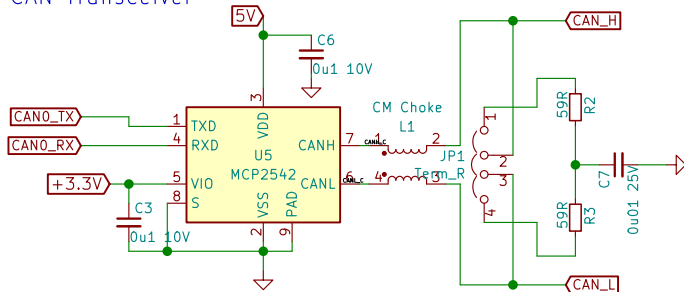
KiCad E.D.A. kicad (5.1.4)-1

Id: 1/5

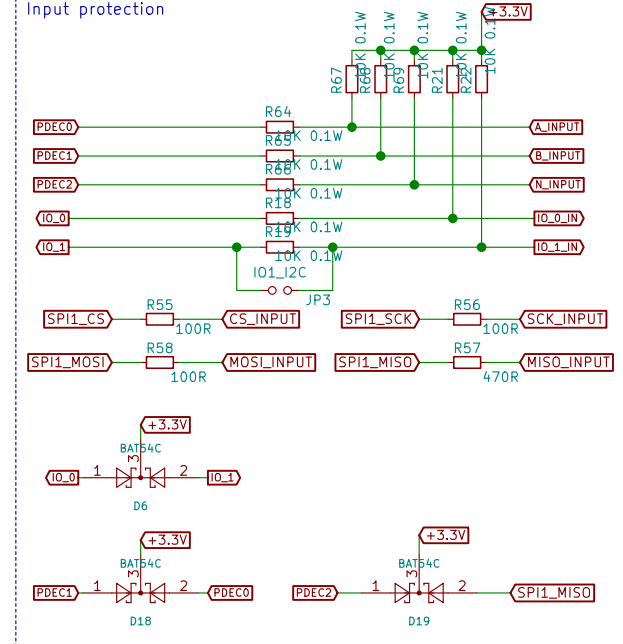
## TMC 2160 Driver



## CAN Transceiver



## Input protection



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Sheet: /Stepper Driver & Endstops/

File: Stepper\_Drv.sch

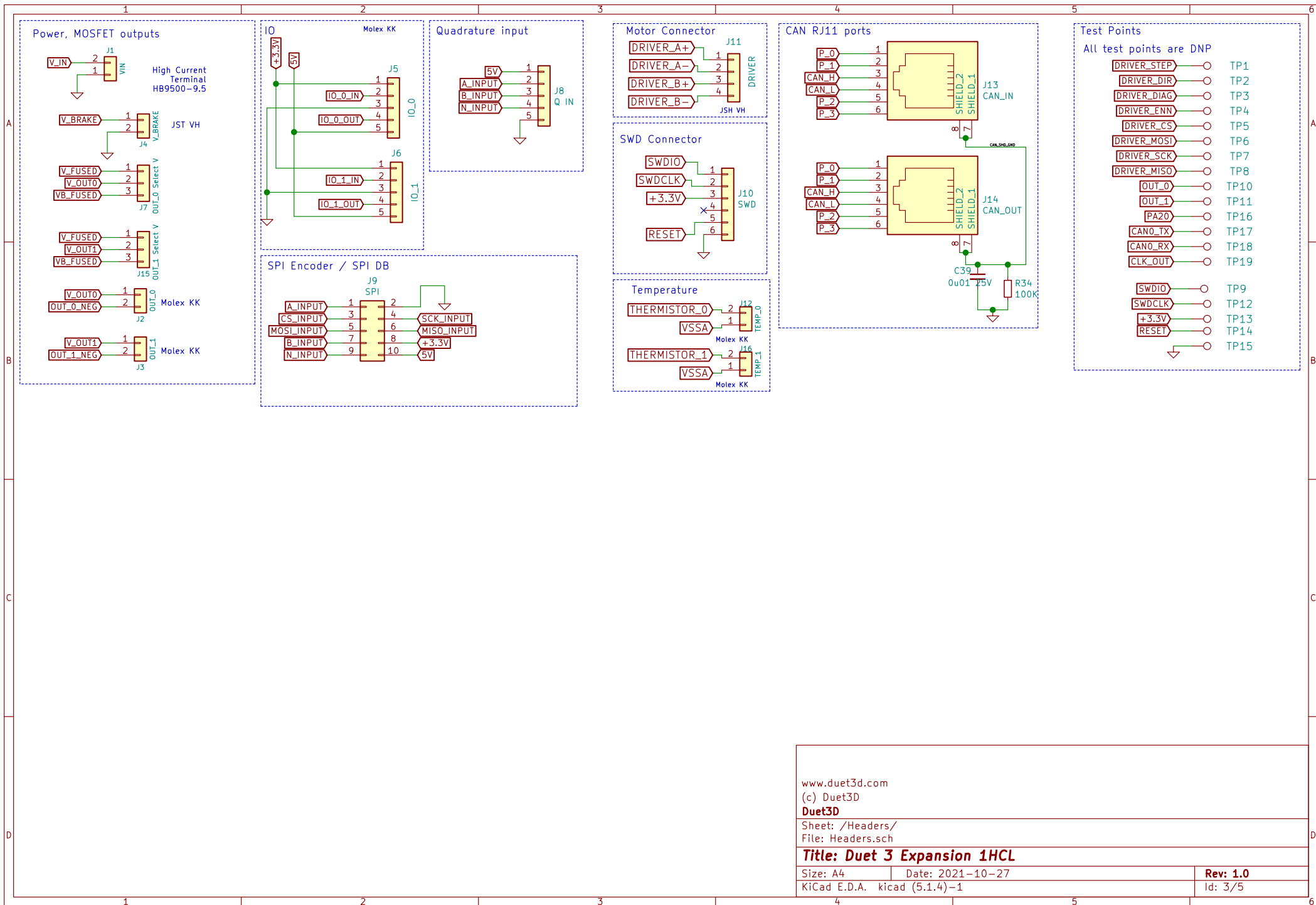
**Title: Duet 3 Expansion 1HCL**

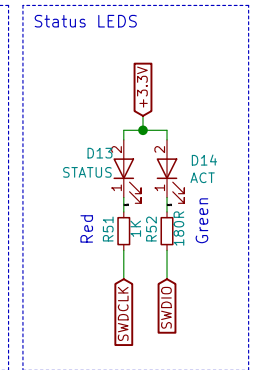
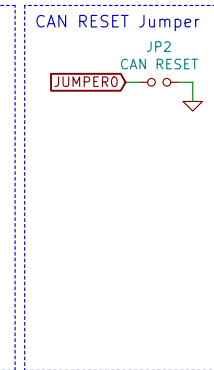
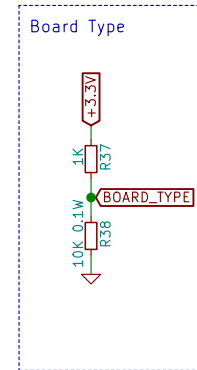
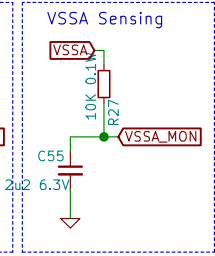
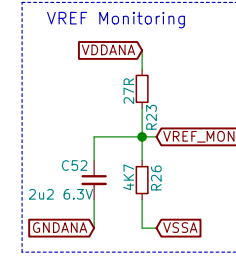
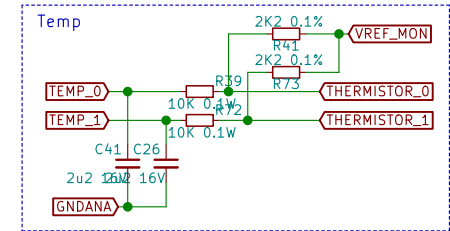
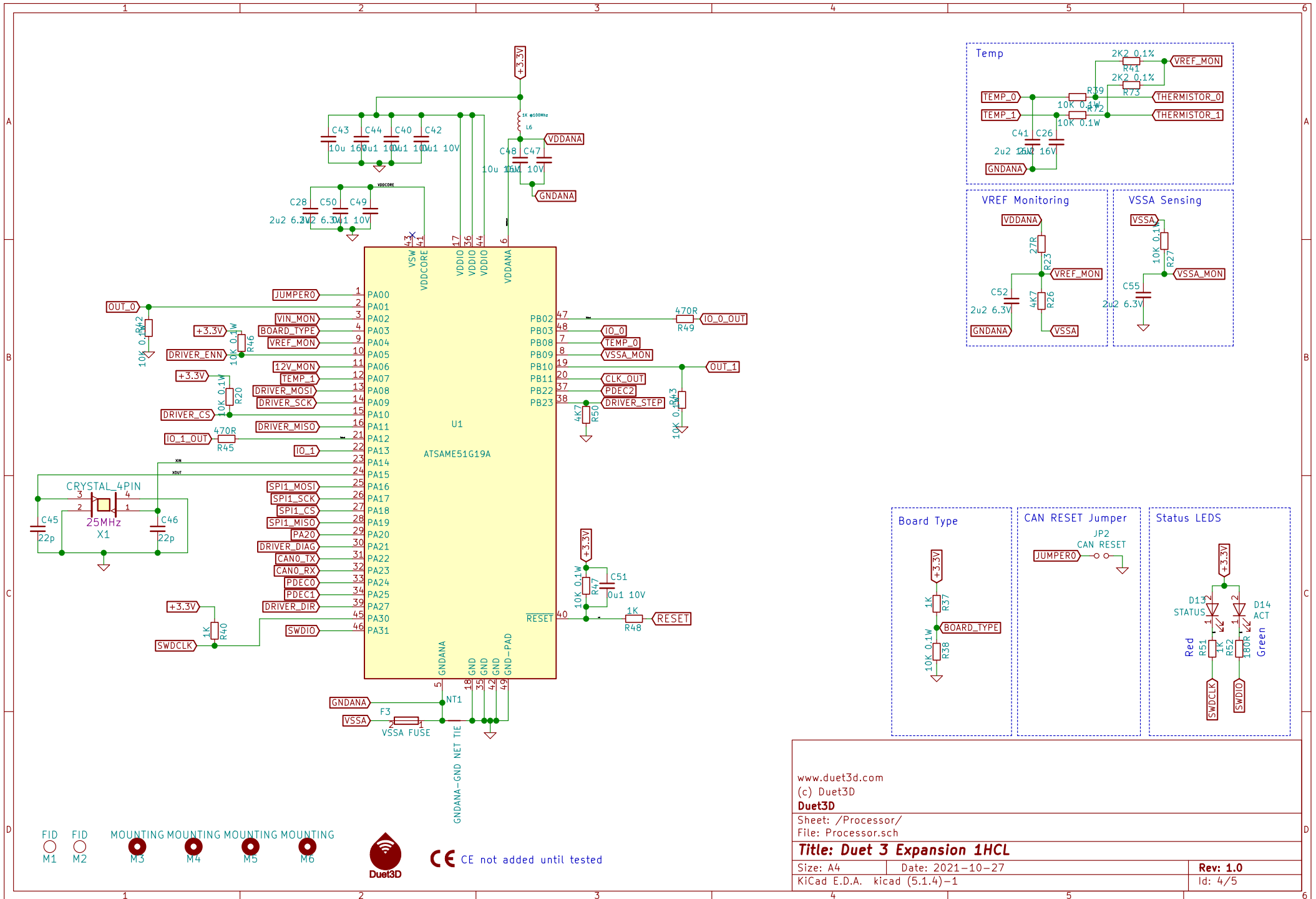
Size: A4 Date: 2021-10-27

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Sheet: /Processor/

File: Processor.sch

**Title: Duet 3 Expansion 1HCL**

Size: A4 Date: 2021-10-27

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**Rev: 1.0**

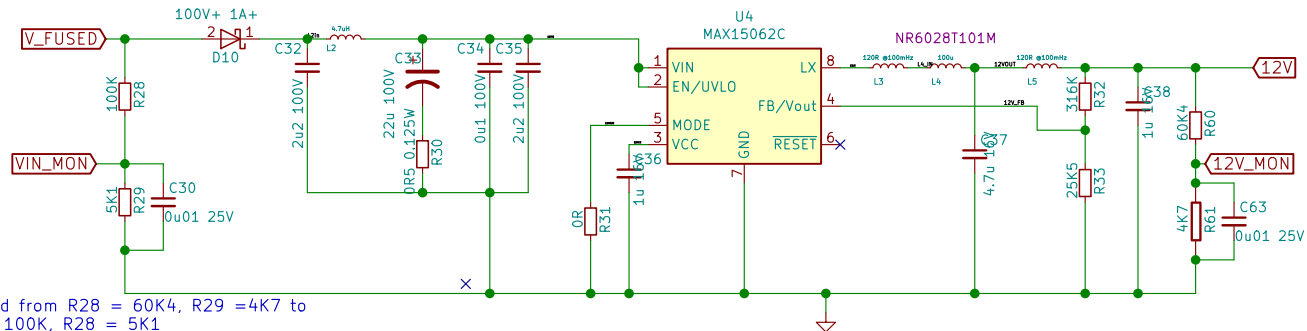
Id: 4/5

FID M1 FID M2 MOUNTING M3 MOUNTING M4 MOUNTING M5 MOUNTING M6



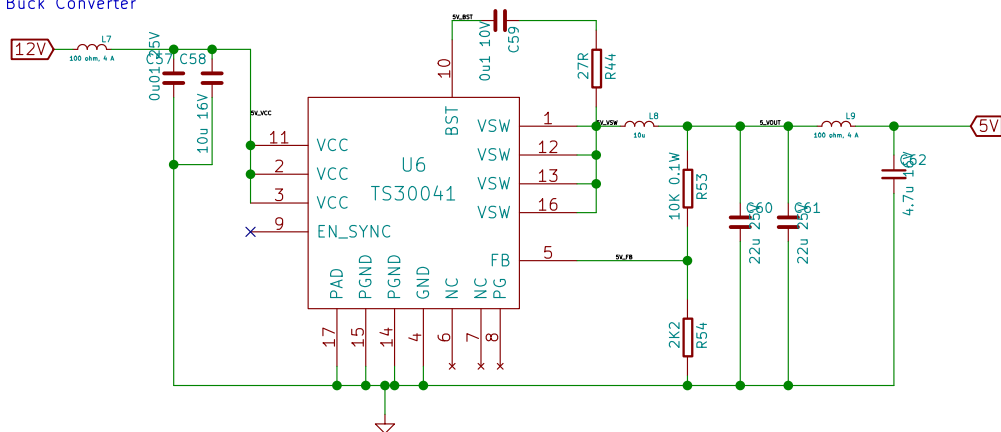
CE CE not added until tested

12-50V Input, 12V 300mA Output  
PWM Buck Converter

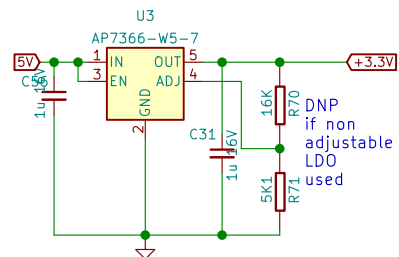


changed from R28 = 60K4, R29 = 4K7 to  
R28 = 100K, R28 = 5K1

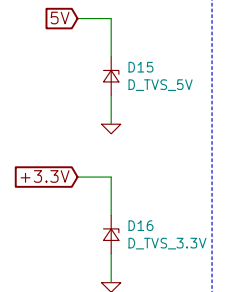
12V Input, 5V Output  
PWM Buck Converter



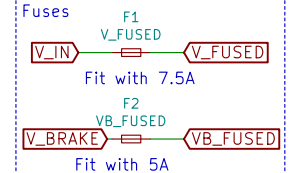
5V Input, 3.3V Output  
Low Drop-Out Linear Regulator



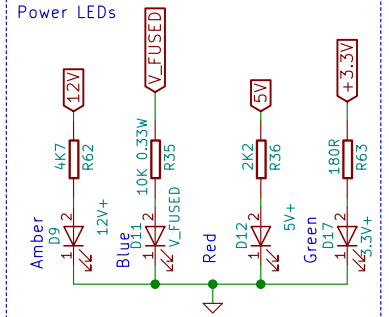
- ESD protection



## Fuses



- Power LEDs



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Sheet: /Power/

File: Power.sch

**Title: Duet 3 Expansion 1HCL**

Size: A4	Date: 2022-01-20
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Size: A1	Date: 2022
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Rev: 1.0

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