

#### CAN NODE DESIGN NOTES – TEENSY 4.0 + TCAN334G

- 3.3 V CAN transceiver w/ standby (TCAN334G must be used)
- VCC = 3.3 V with local 0.1  $\mu$ F decoupling at device
- TXD pull-up to 3.3 V (10k)  $\rightarrow$  recessive during MCU reset
- STB pull-up to 3.3 V (10k)  $\rightarrow$  default standby; MCU drives LOW after FlexCAN init
- Direct MCU interface: TXD $\leftrightarrow$ CAN\_TX, RXD $\leftrightarrow$ CAN\_RX (no level shifting)
- VREF not used (leave NC)
- Split termination 2, 60 $\Omega$  termination only at physical bus ends
- CAN TVS (SM24CANB-02) at connector: hot plug protection

#### POWER UP SEQUENCE

- STB pulled HIGH  $\rightarrow$  transceiver silent
- TXD pulled HIGH  $\rightarrow$  recessive guaranteed
- Teensy boots
- FlexCAN init
- MCU drives STB LOW  $\rightarrow$  clean join

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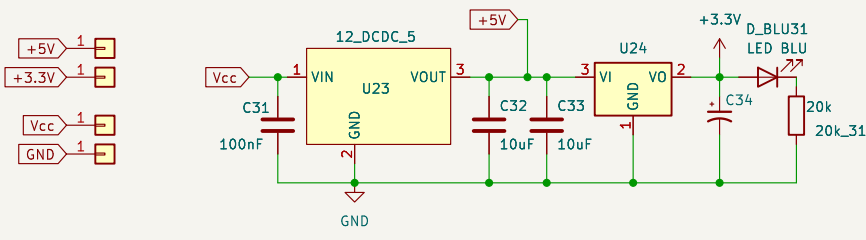
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