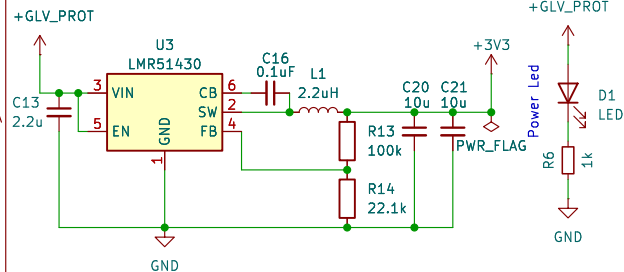
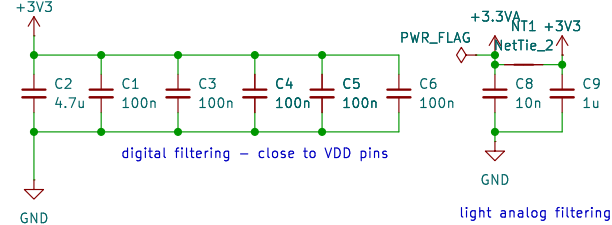


Power regulator 12v – 3.3V

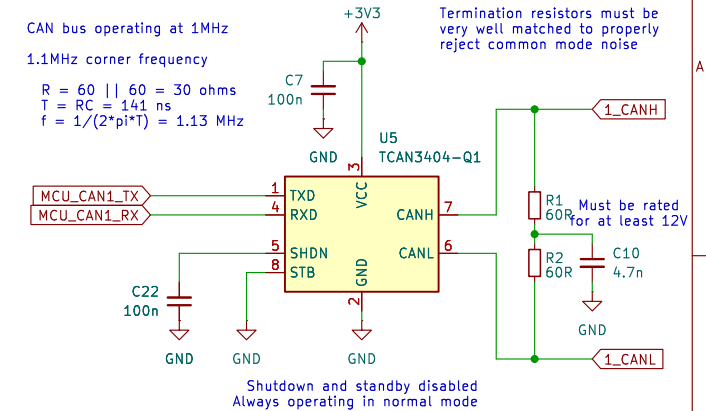


Power filtering

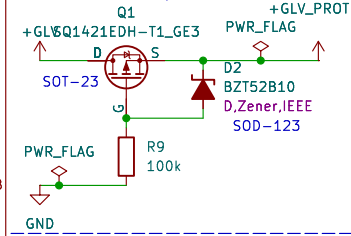


CAN Transceivers and Isolation

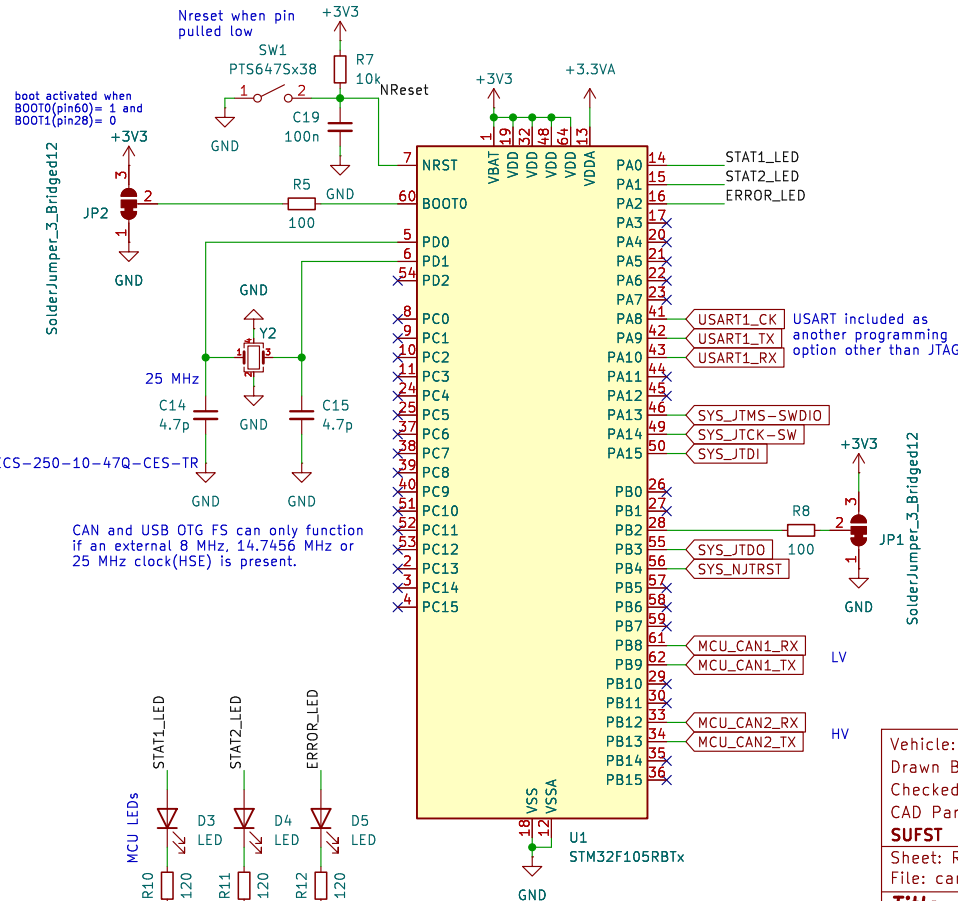
CAN bus operating at 1MHz
1.1MHz corner frequency
 $R = 60 \parallel 60 = 30 \text{ ohms}$
 $T = RC = 141 \text{ ns}$
 $f = 1/(2\pi \cdot T) = 1.13 \text{ MHz}$



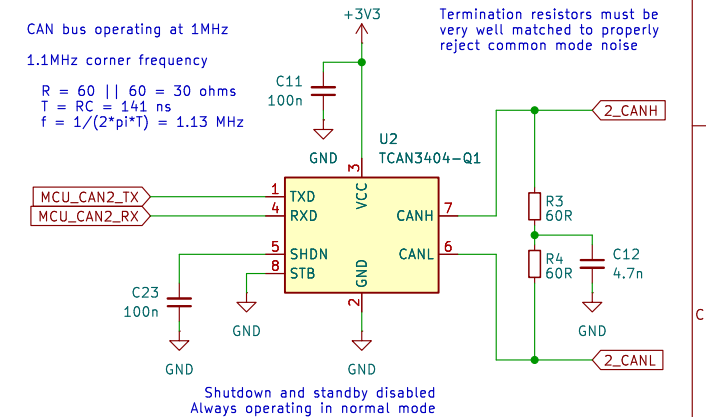
Reverse Polarity Protection



STM32F105RBT



CAN bus operating at 1MHz
1.1MHz corner frequency
 $R = 60 \parallel 60 = 30 \text{ ohms}$
 $T = RC = 141 \text{ ns}$
 $f = 1/(2\pi \cdot T) = 1.13 \text{ MHz}$

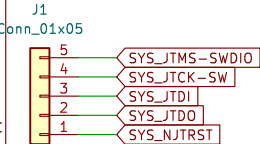


Connectors

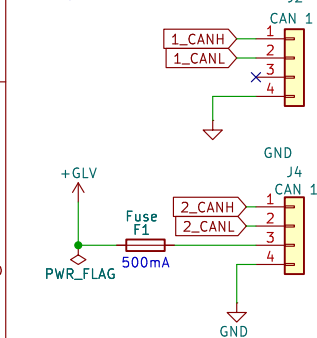
Using header pins



Using header pins



Using Harwin M80-5400442



Vehicle: STAG12
Drawn By: Adam Eastman
Checked By: Ray Wang & Annabel Owen
CAD Part:

SUFST

Sheet: Root
File: can-repeater.kicad_sch

Title: CAN-Repeater

Size: A4 Date: 2025-11-06

KiCad E.D.A. 9.0.4

Rev: 1.0.0

Id: 1/1

