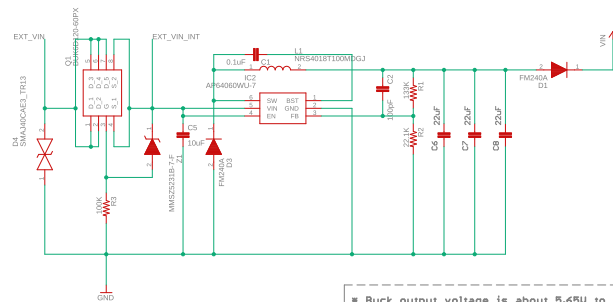
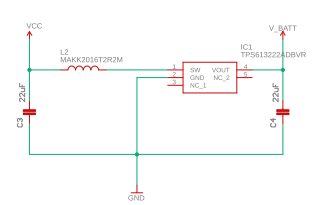


6V to 36V Buck



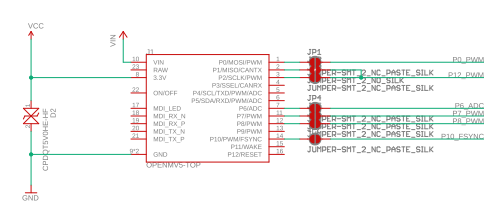
■ Buck output voltage is about 5.65V to be 5V after the diode forward voltage drop.

3.3V to 5V Boost

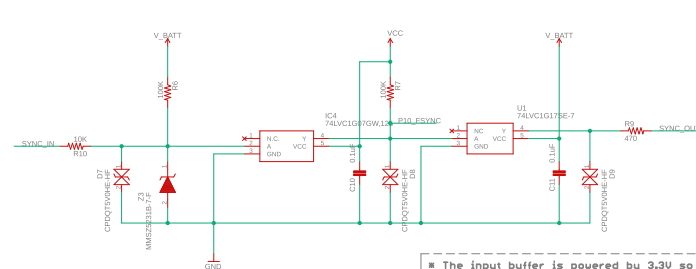


■ 3.3V is used to create the 5V rail so it can be turned off in low power mode.

Shield Headers

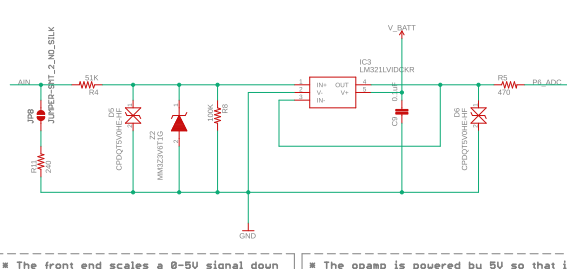


FSYNC Input and Output



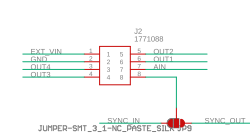
■ The input buffer is open drain so that SYNCIN is OR'ed with multiple shields attached.

ADC Input



■ The shunt resistor when connected allows the ADC circuit to read 4-28mA sensors.

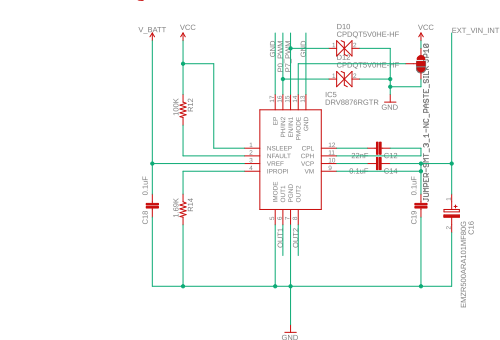
Terminal



Mechanical

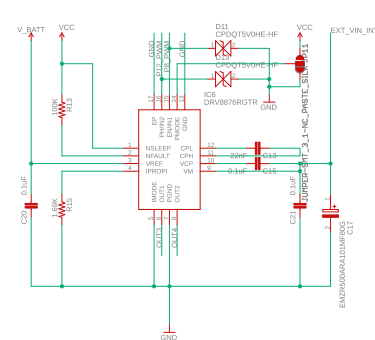
○ ○ ○ ○ ○ ○ ○ ○ ○ ○

H-Bridge Drivers



■ PHODE States:
 ---Low--- (Speed/Direction Mode)
 P7 = PHH
 P7=0% -> Out1,Out2=L,L (motor break)
 P7=1%-100% (below)
 P8 = Direction
 P8=L -> Out1,Out2=L,H (motor reverse)
 P8=H -> Out1,Out2=H,L (motor forward)
 ---High--- (H-Bridge Mode - Can be PHMed)
 P8,P8=L,L -> Out1,Out2=H,L (motor coast)
 P8,P8=L,H -> Out1,Out2=H,L (motor forward)
 P8,P8=H,L -> Out1,Out2=L,H (motor reverse)
 P8,P8=H,H -> Out1,Out2=L,L (motor break)
 ---Float--- (Independent Mode - Can be PHMed)
 P7=L -> Out1=L
 P7=H -> Out1=H
 P8=L -> Out2=L
 P8=H -> Out2=H

 The current is limited to 3A total for the chip.



■ PHODE States:
 ---Low--- (Speed/Direction Mode)
 P8 = PHH
 P8=0% -> Out3,Out4=L,L (motor break)
 P8=1%-100% (below)
 P12 = Direction
 P12=L -> Out3,Out4=L,H (motor reverse)
 P12=H -> Out3,Out4=H,L (motor forward)
 ---High--- (H-Bridge Mode - Can be PHMed)
 P12,P8=L,L -> Out3,Out4=H,L (motor coast)
 P12,P8=L,H -> Out3,Out4=H,L (motor forward)
 P12,P8=H,L -> Out3,Out4=L,H (motor reverse)
 P12,P8=H,H -> Out3,Out4=L,L (motor break)
 ---Float--- (Independent Mode - Can be PHMed)
 P8=L -> Out3=L
 P8=H -> Out3=H
 P12=L -> Out4=L
 P12=H -> Out4=H

 The current is limited to 3A total for the chip.

Copyright (c) 2013-2023 OpenMV <openmv@openmv.io>

This work is licensed under the Creative Commons Attribution-ShareAlike 3.0 License.

To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/3.0/>

TITLE: driver

Document Number:

REV:

Date: 4/17/2023 12:16 PM

Sheet: 1/1