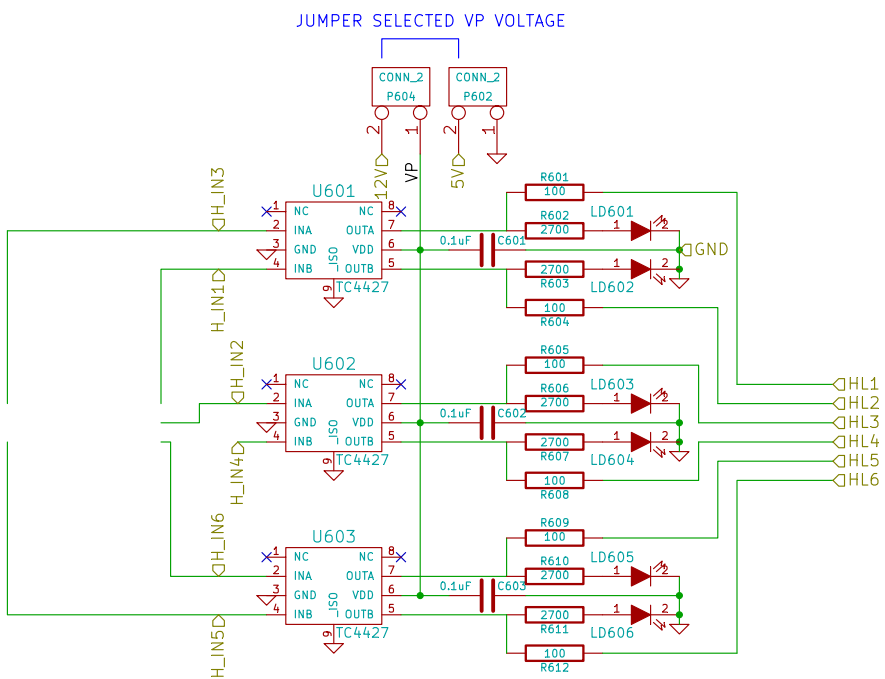


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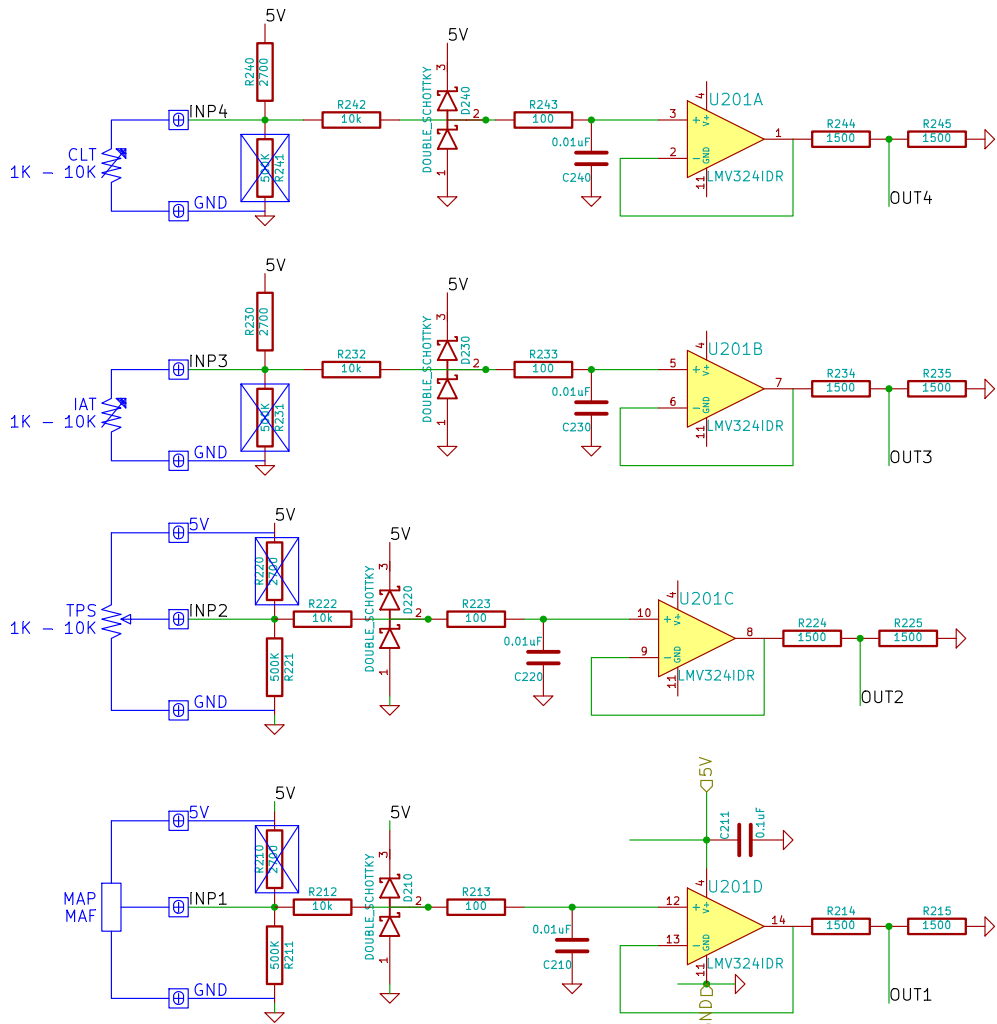


rusEFI.com			
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Title: Frankenso			
Size: B		Date: 6 apr 2015	Rev: .04
KiCad E.D.A. eschema (2013-07-07 BZR 4022)-stable			Id: 1/14

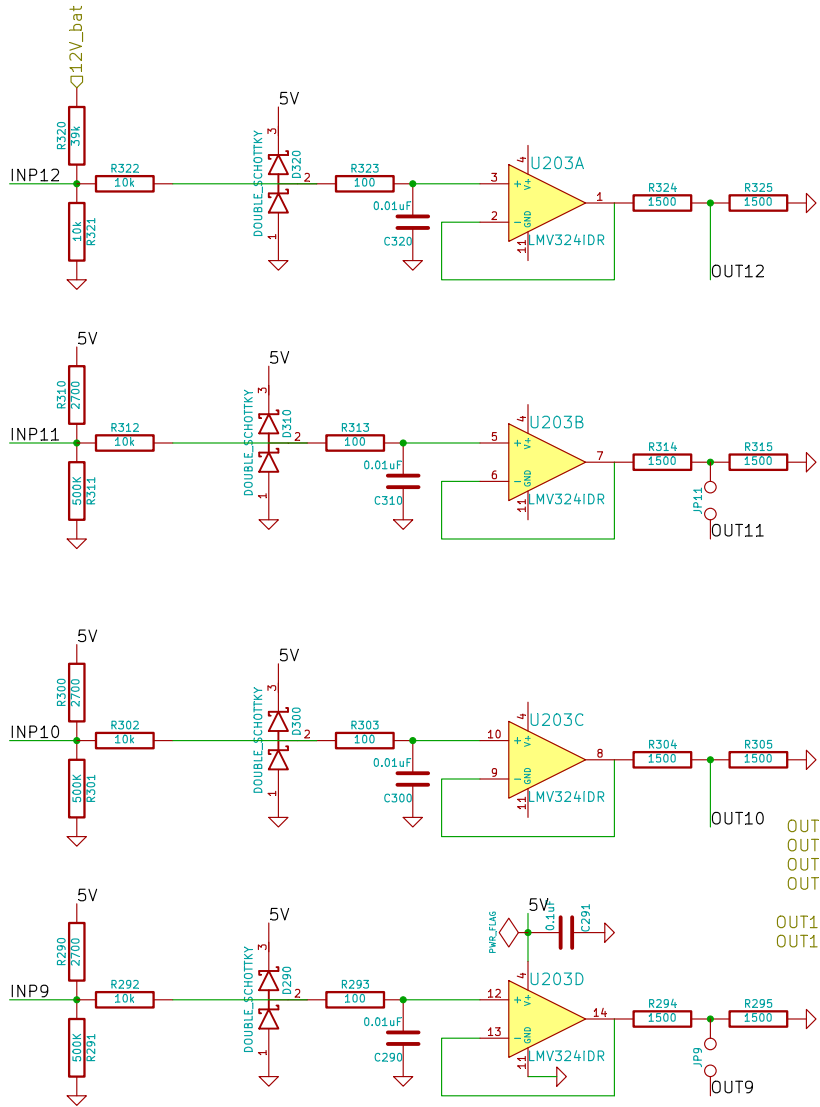
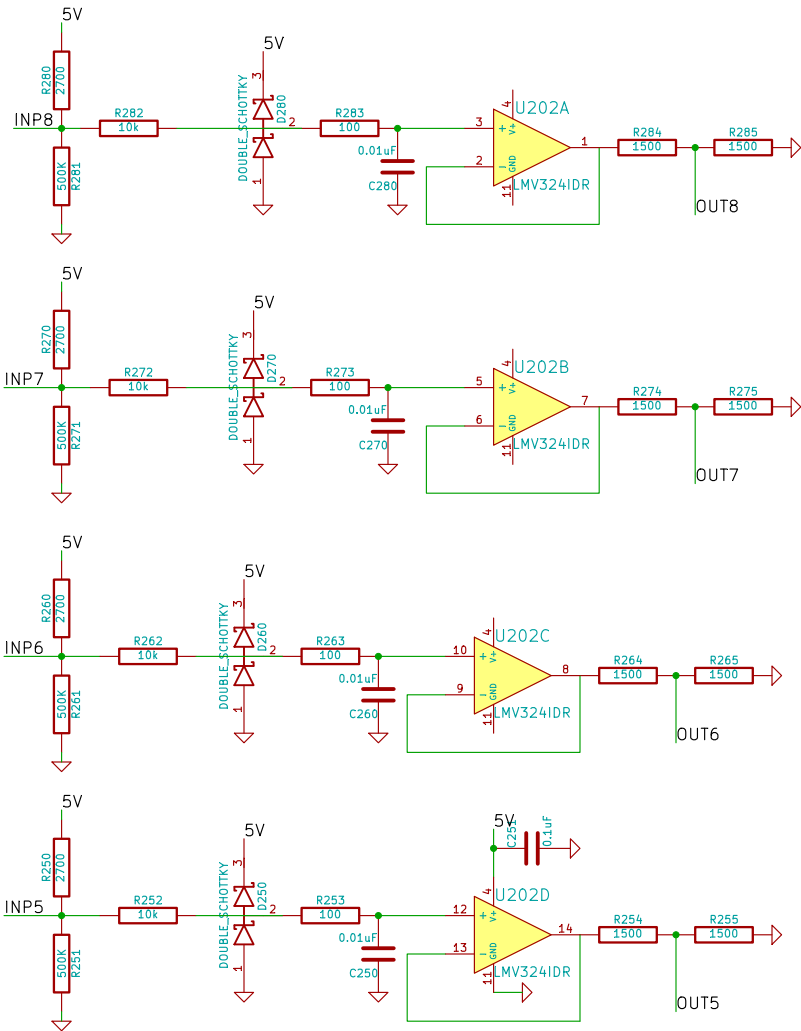
6 channel high / low side driver



SUGGESTED ENGINE WIRING IN BLUE



- INP12
- INP11
- INP10
- INP9
- INP8
- INP7
- INP6
- INP5
- INP4
- INP3
- INP2
- INP1



- OUT4D
- OUT3D
- OUT1D
- OUT2D
- OUT10D
- OUT12D

- OUT6
- OUT5
- OUT8
- OUT7
- OUT9
- OUT11

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Sheet: /adc_amp_divider/

Title: Frankenso

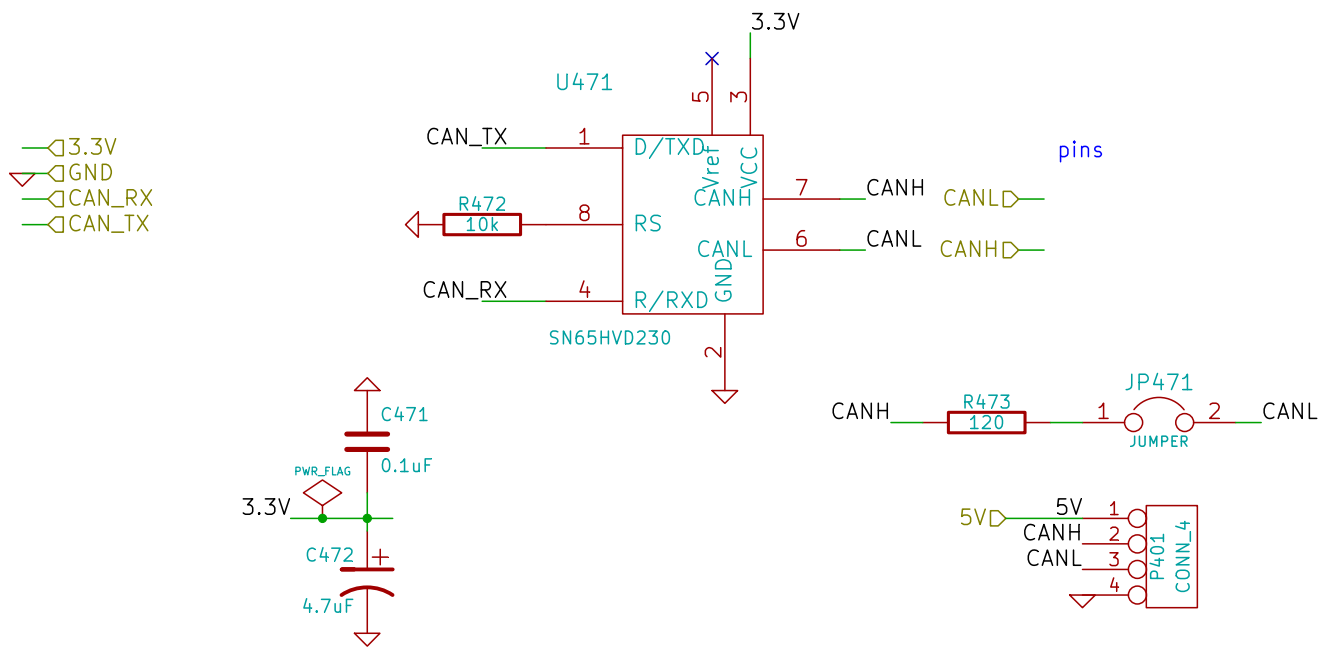
Size: B

Date: 6 apr 2015

Rev: .02

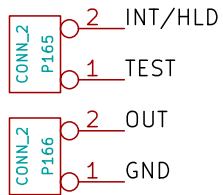
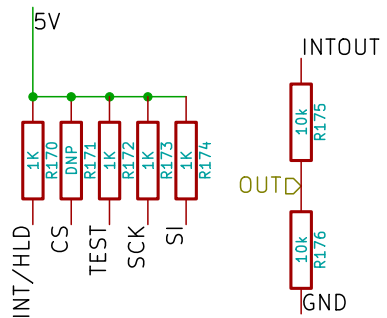
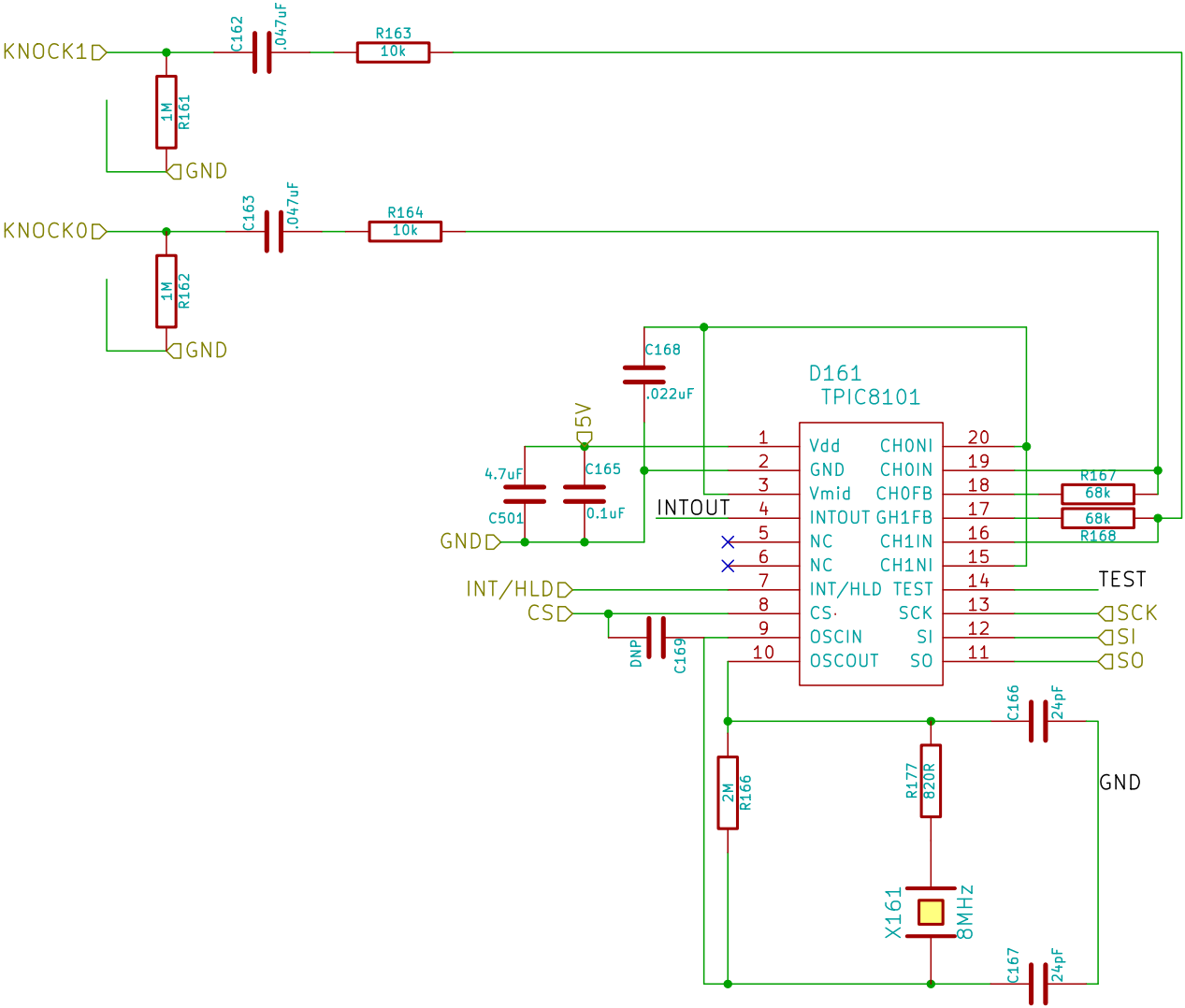
KiCad E.D.A. eeschema (2013-07-07 BZR 4022)-stable

Id: 3/14



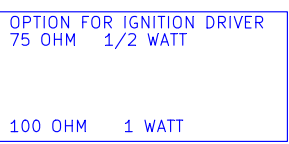
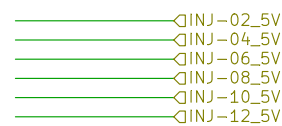
CAN level shifter

DD_HIP9011 ver.2
RusEfi.com



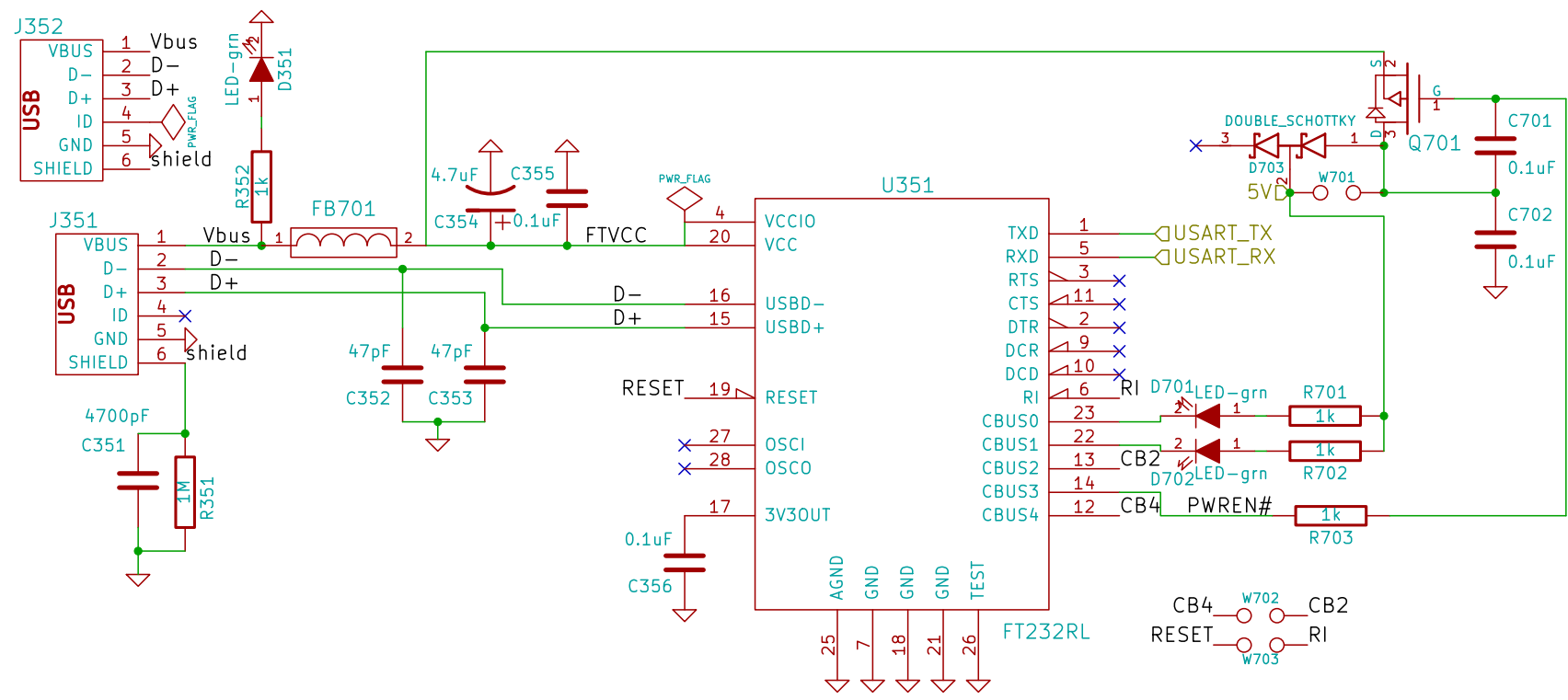
<http://www.crystek.com/documents/appnotes/Pierce-GateIntroduction.pdf>
PCB per predictions with SaturnPCB has less then 3.5pF traces,
TPIC pins assumed 5pF
ESR = 80ohms max
Rf = 2meg could be between 1meg and 10meg.
Cload = 18pF per XTAL datasheet
Cload = $\frac{([C_{in}+C_1][C_2+C_{out}])}{(C_{in}+C_1+C_2+C_{out})+PCB_{stray}}$
Cload = $\frac{([5+24][24+5])}{(5+24+24+5)+3.5} = 18pF$
C1=C2=C166=C167 = 24pF
Rs = $\frac{1}{(2\pi f C_2)} = \frac{1}{(2\pi * 8MHz * 24pF)} = 829ohms$, 820ohms is close enough = R177

rusEFI.com		
File: DD_HIP9011.sch		
Sheet: /DD_HIP9011/		
Title: Frankenso		
Size: A4	Date: 6 apr 2015	Rev: .02
KiCad E.D.A. eeschema (2013-07-07 BZR 4022)-stable		Id: 5/14

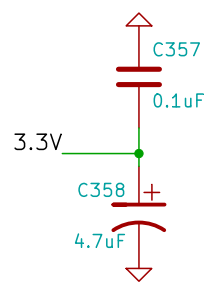
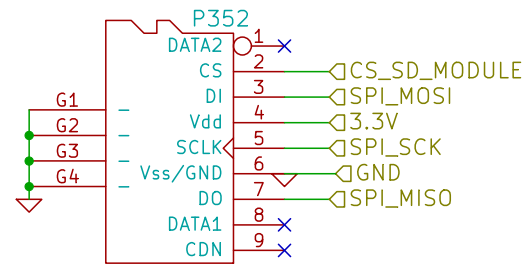


Screw connector PCB <http://octopart.com/39522-1007-molex-655409>
Screw connector harness <http://octopart.com/partsearch#search/requestData&q=39520-0007>

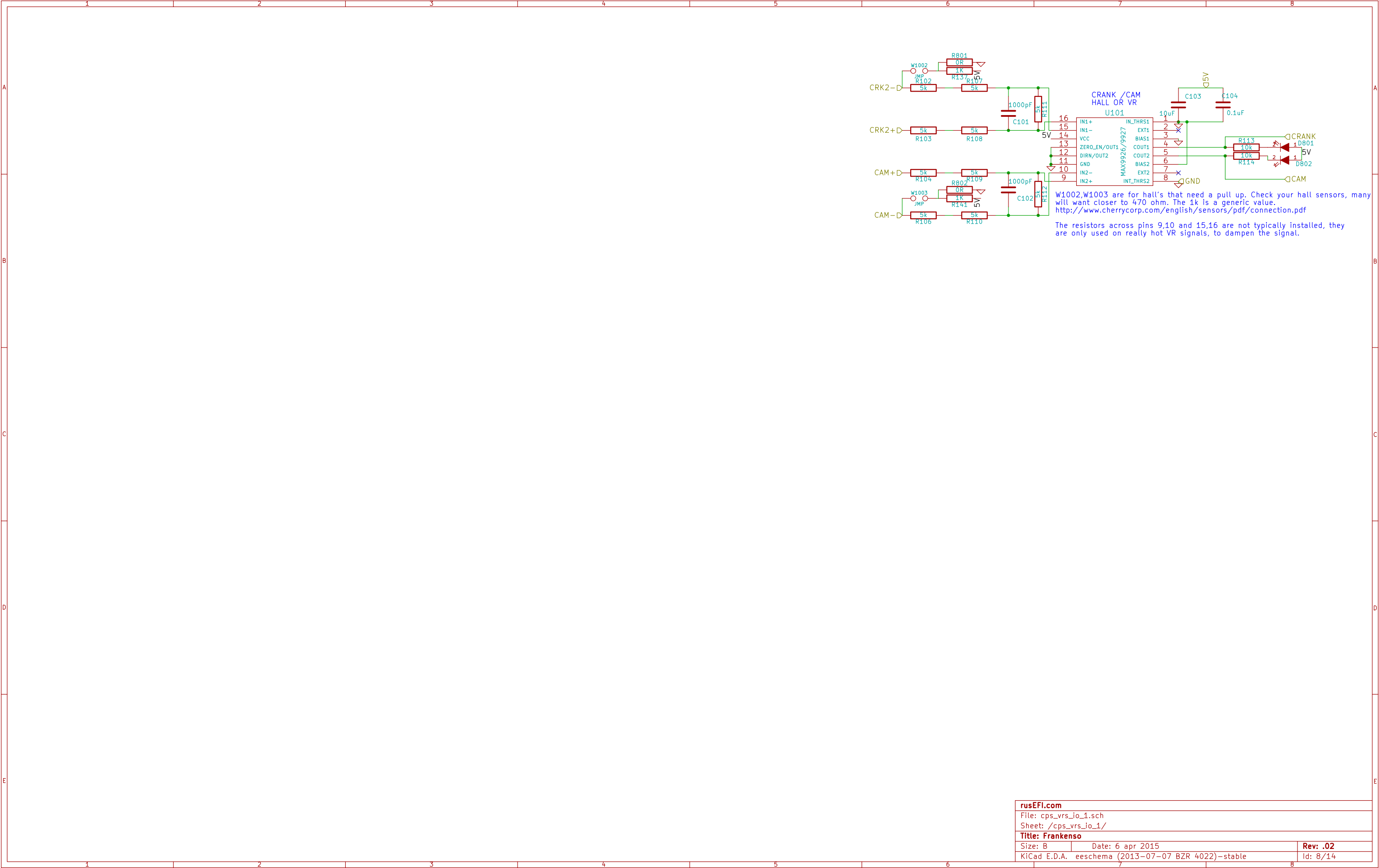
WJ01 IS A BACKUP PLAN. THE VOLTAGE DROP ACROSS D703 MAY BE NOT TOLERABLE, SO WE HAVE A BACK UP PLAN IF WE NEED TO BYPASS THE DIODE WITH A LOWER VOLTAGE DROP



For right conn

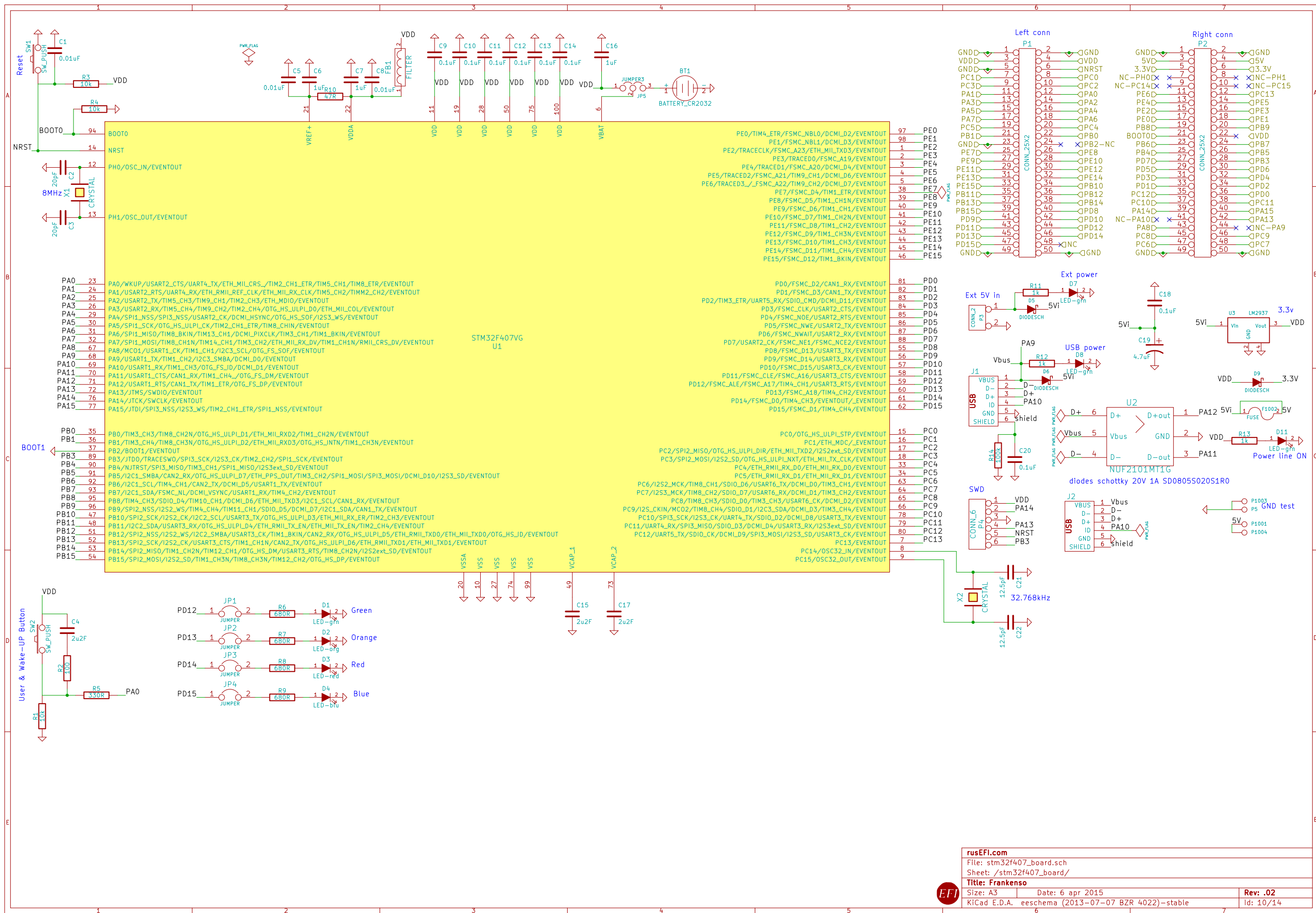


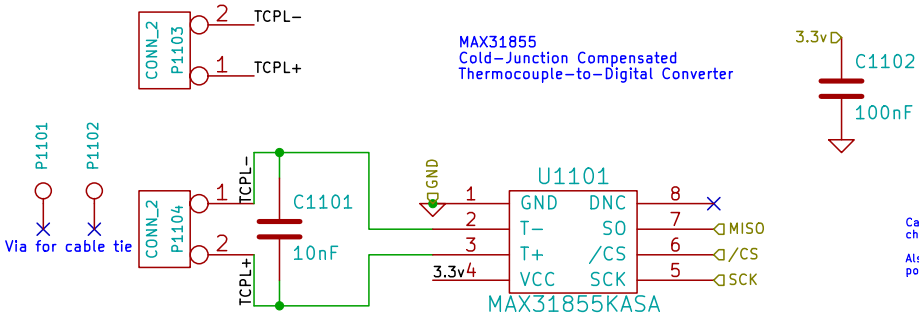
SD card slot
USB TTL module





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File: PWR_buck_12V_switcher.sch		
Sheet: /PWR_buck_12V_switcher/		
Title: Frankenso		
Size: A	Date: 6 apr 2015	Rev: .02
KiCad E.D.A.	eeschema (2013-07-07 BZR 4022)-stable	Id: 9/14

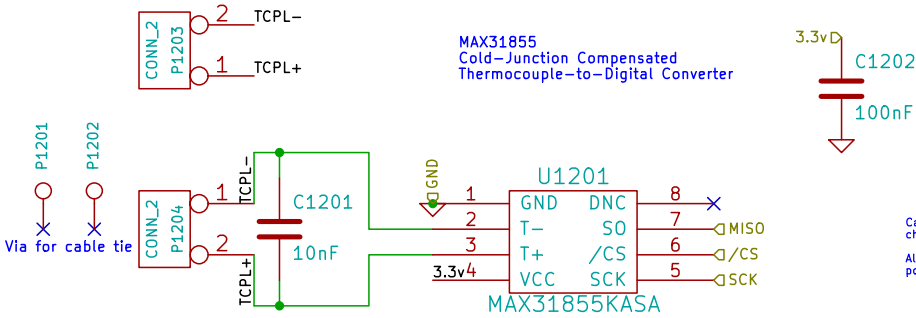




We want a big mass of copper in the TCPL joints, to dampen the cold junction temperature and to make it more measurable with this IC

Datasheet:
<http://datasheets.maxim-ic.com/en/ds/MAX31855.pdf>

Mrk Industries		
File: thermocouple_module.sch		
Sheet: /thermocouple1/		
Title: Electronic Industrial Temperature Interface (EITI)		
Size: A4	Date: 6 apr 2015	Rev: .02
KiCad E.D.A. eeschema (2013-07-07 BZR 4022)-stable		Id: 11/14

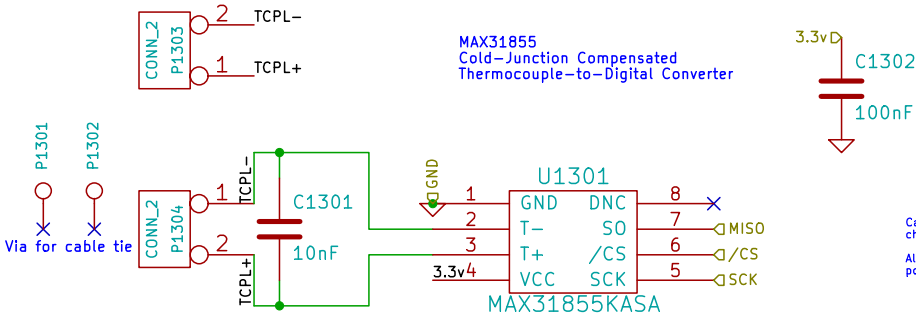


We want a big mass of copper in the TCPL joints, to dampen the cold junction temperature and to make it more measurable with this IC

Datasheet:
<http://datasheets.maxim-ic.com/en/ds/MAX31855.pdf>

Care must be taken with the conector chosen for the TCPL to avoid Inaccuracies.
Also, the connector must be as close as possible to the cold-junction compensation.

Mrk Industries		
File: thermocouple_module.sch		
Sheet: /thermocouple2/		
Title: Electronic Industrial Temperature Interface (EITI)		
Size: A4	Date: 6 apr 2015	Rev: .02
KiCad E.D.A. eeschema (2013-07-07 BZR 4022)-stable		Id: 12/14

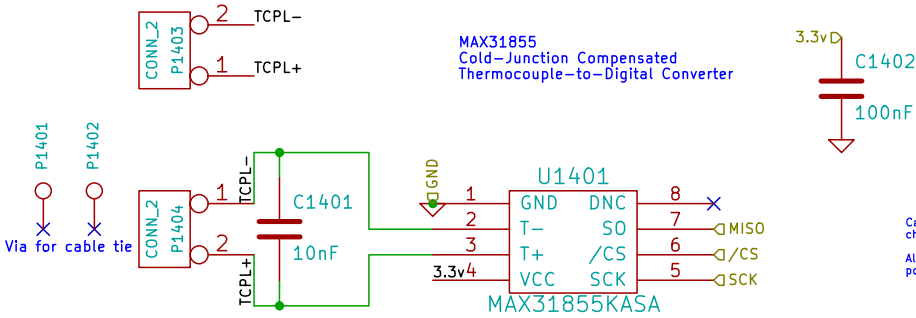


We want a big mass of copper in the TCPL joints, to dampen the cold junction temperature and to make it more measurable with this IC

Datasheet:
<http://datasheets.maxim-ic.com/en/ds/MAX31855.pdf>

Care must be taken with the conector chosen for the TCPL to avoid Inaccuracies.
Also, the connector must be as close as possible to the cold-junction compensation.

Mrk Industries		
File: thermocouple_module.sch		
Sheet: /thermocouple3/		
Title: Electronic Industrial Temperature Interface (EITI)		
Size: A4	Date: 6 apr 2015	Rev: .02
KiCad E.D.A. eeschema (2013-07-07 BZR 4022)-stable		Id: 13/14



We want a big mass of copper in the TCPL joints, to dampen the cold junction temperature and to make it more measurable with this IC

Datasheet:
<http://datasheets.maxim-ic.com/en/ds/MAX31855.pdf>

Mrk Industries

File: thermocouple_module.sch

Sheet: /thermocouple4/

Title: Electronic Industrial Temperature Interface (EITI)

Size: A4

Date: 6 apr 2015

Rev: .02

KiCad E.D.A. eeschema (2013-07-07 BZR 4022)-stable

Id: 14/14