

A

A

B

B

C

C

D

D



Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Project:

Top

Drawing number: 1 Rev: 2 Format: Laboratory: TIK Sheet: top.SchDoc

Date: 16.11.2016 10:14:45 A3 Drawn by: Stefan Lippuner Page 1 of 8

File: C:\Users\user\Documents\Rocketlogger\hardware\pcb\Cape\top.SchDoc

1

2

3

4

A

B

C

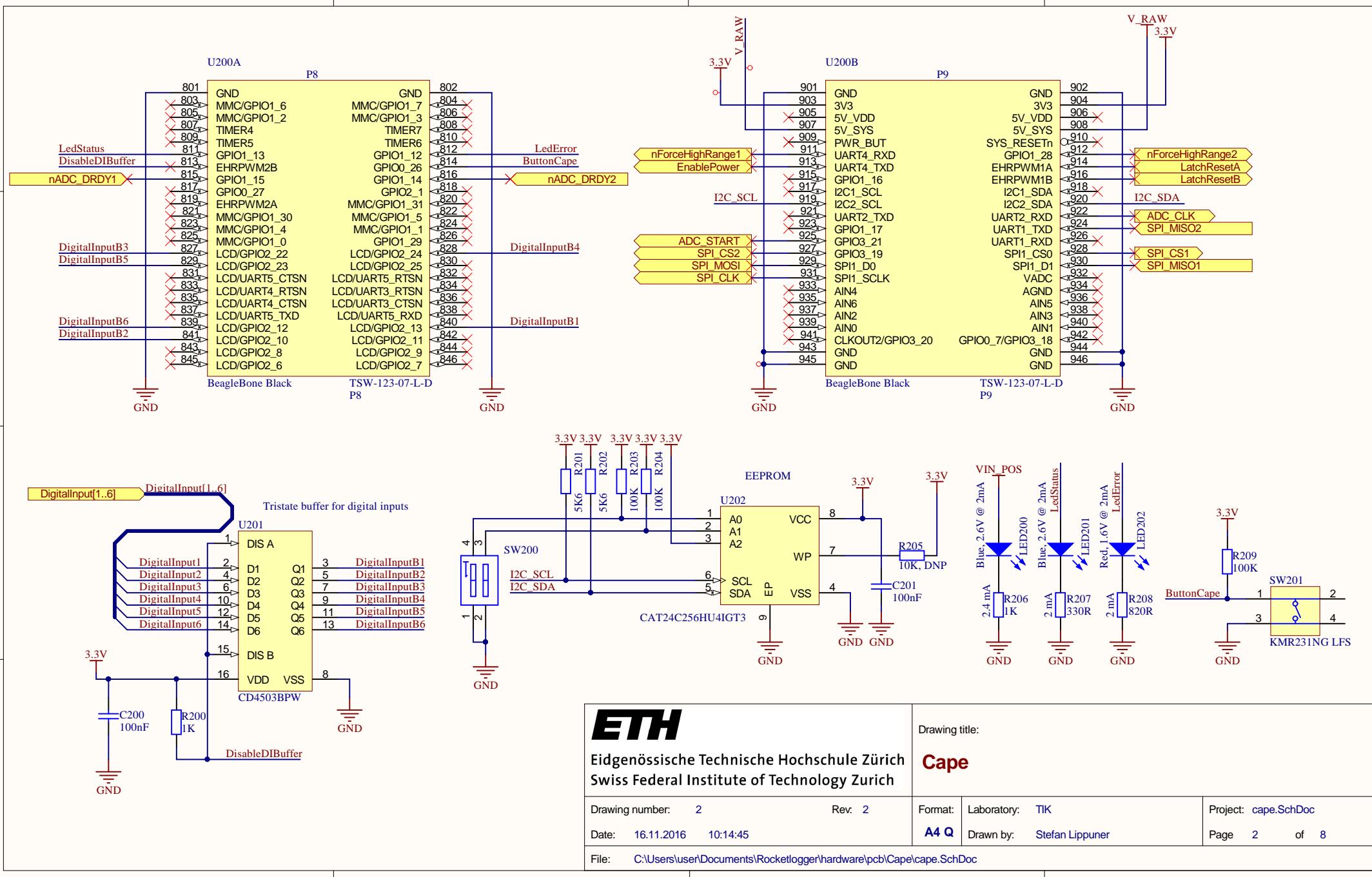
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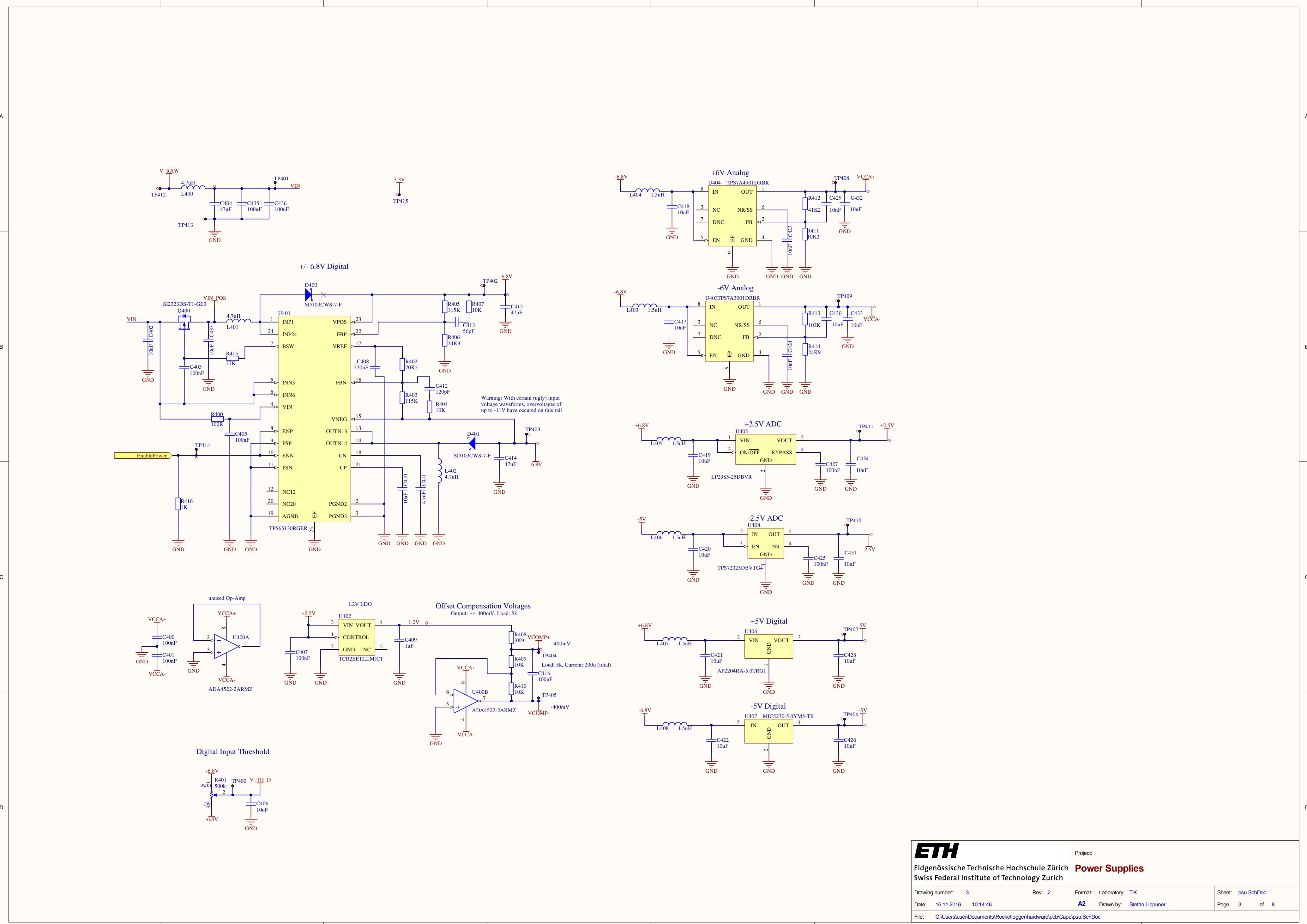
A

B

C

D

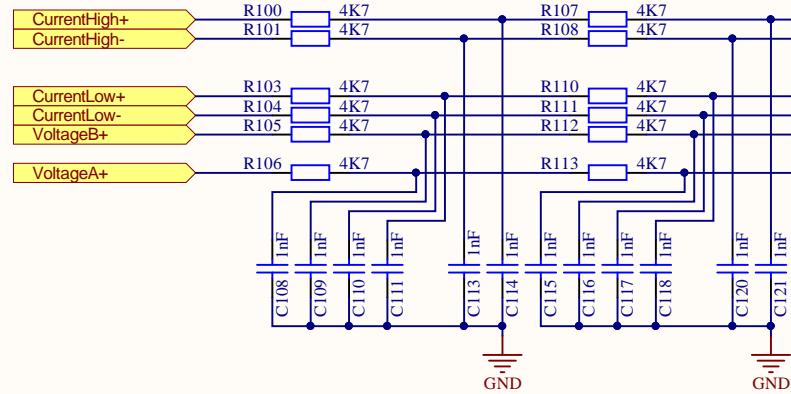




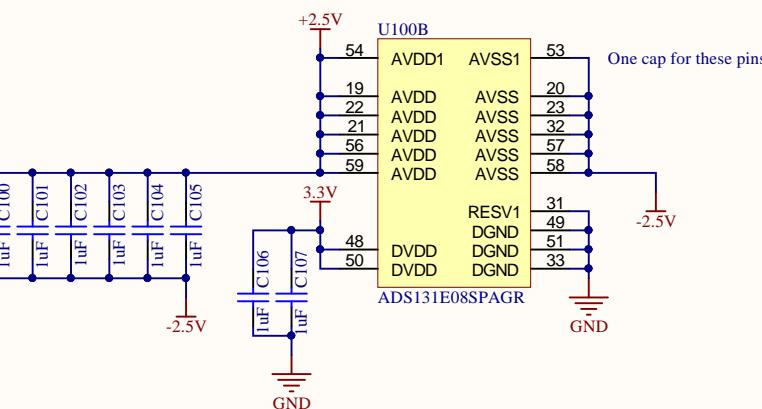
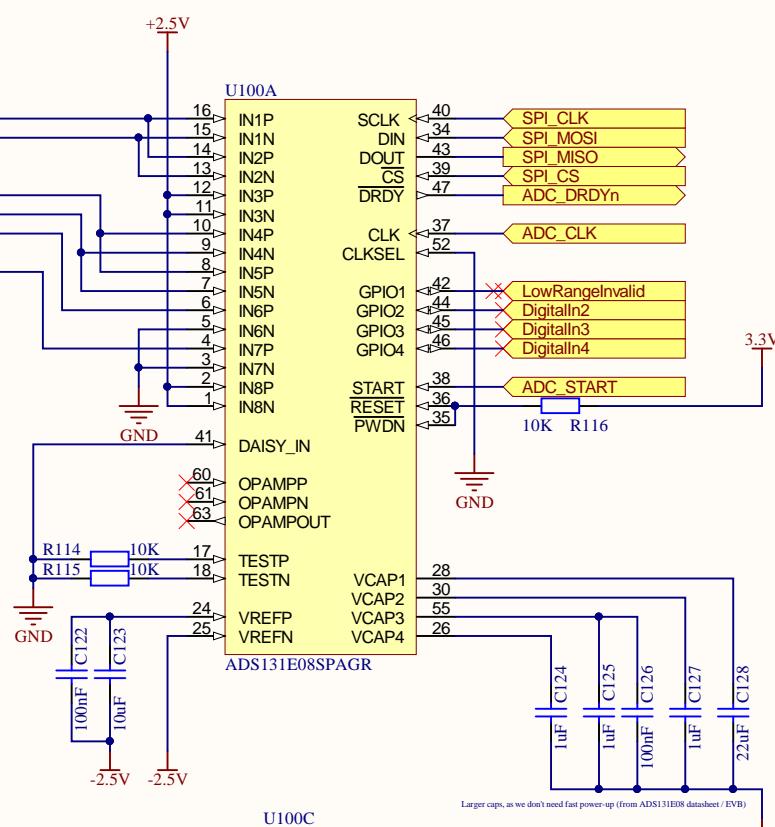
A

Resistors limit input current to 372 μ A

2nd order filter, -3dB @ 21.7kHz



B



D



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Drawing title:

ADC

Drawing number:

4

Rev.

2

Format:

A4

Laboratory:

TIK

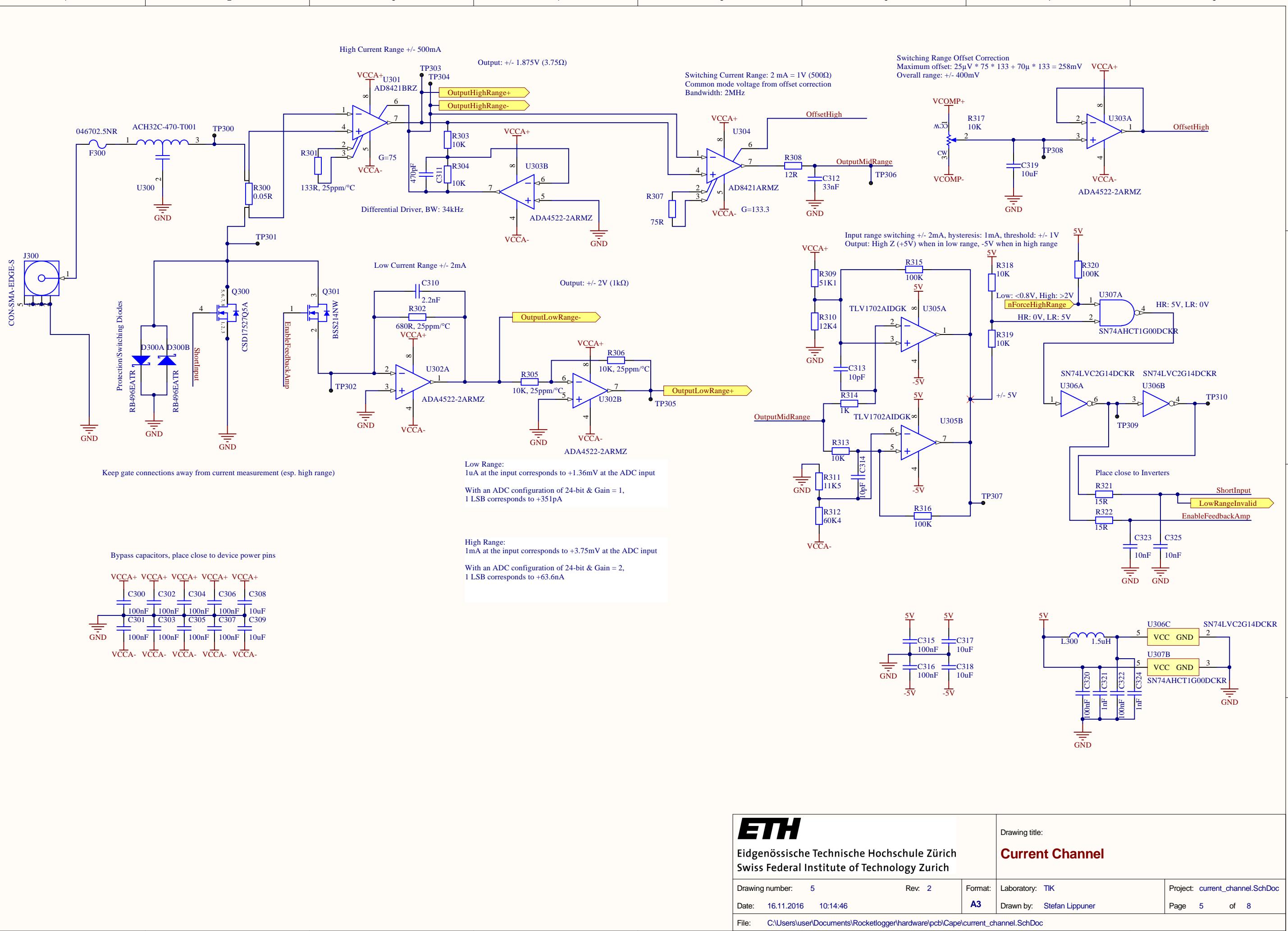
Date: 16.11.2016 10:14:46

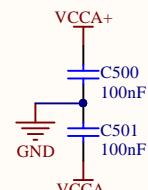
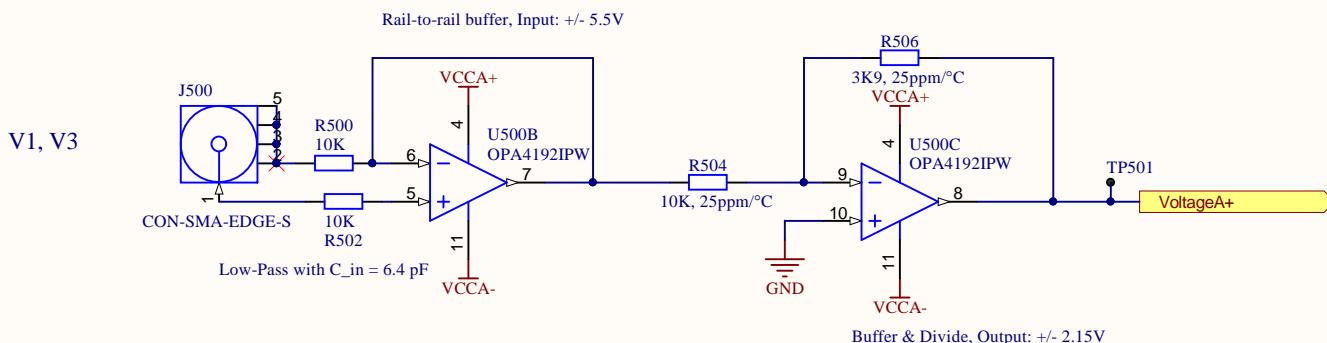
Drawn by: Stefan Lippuner

Project: adc.SchDoc

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File: C:\Users\user\Documents\Rocketlogger\hardware\pcb\Cape\adc.SchDoc





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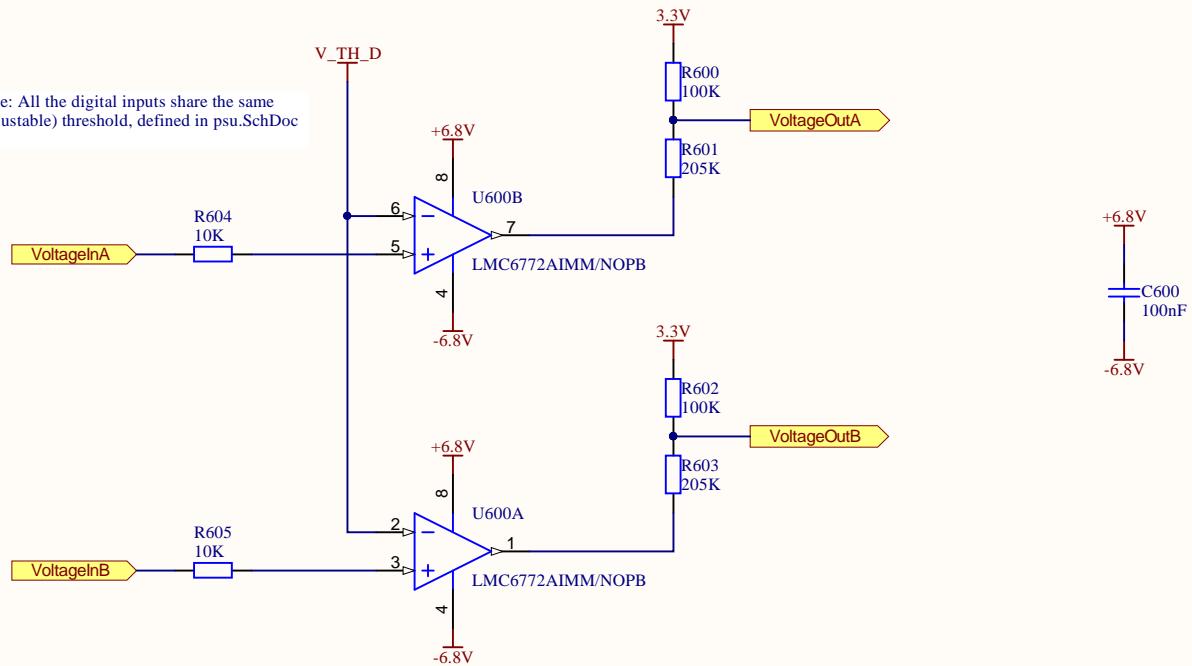
Drawing title:

Voltage Channel

Drawing number:	6	Rev.	2	Format:	Laboratory:	TIK	Project:	voltage_channel.SchDoc
Date:	16.11.2016	10:14:46		A4 Q	Drawn by:	Stefan Lippuner		
File:	C:\Users\user\Documents\Rocketlogger\hardware\pcb\Capel\voltage_channel.SchDoc							

A

Note: All the digital inputs share the same (adjustable) threshold, defined in psu.SchDoc



B

A

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D



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Drawing title:

Digital Voltage Channel

Drawing number: 7 Rev. 2

Date: 16.11.2016 10:14:46

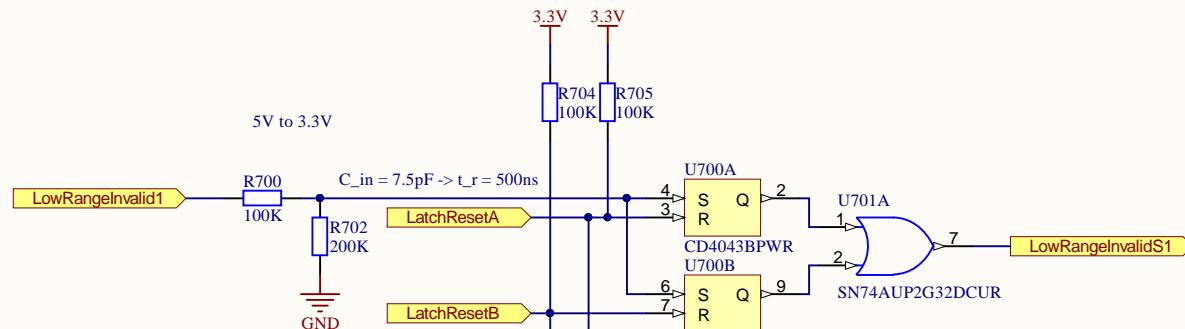
Format: TIK

A4 Q Drawn by: Stefan Lippuner

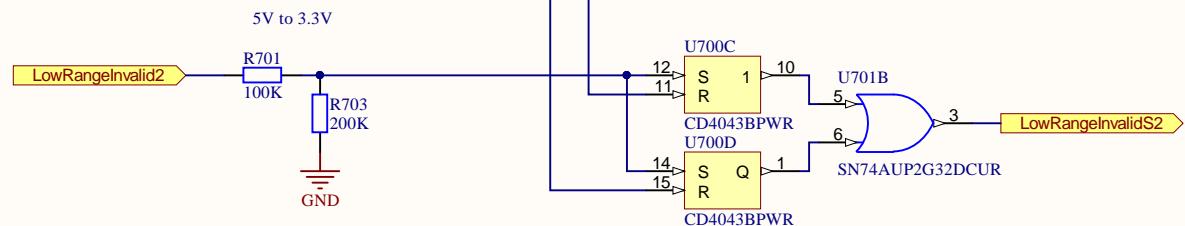
Project: digital_voltage_channel.SchDoc

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A

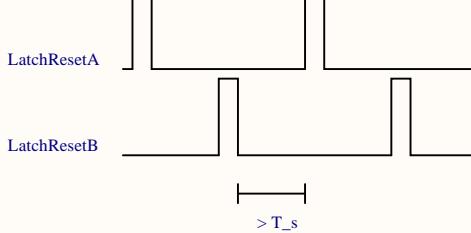
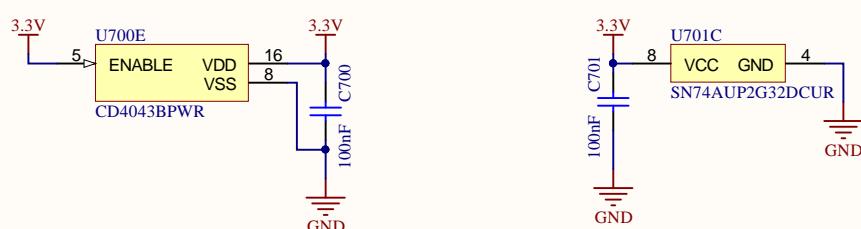


B



C

This circuit stretches the (potentially) short pulses on the LowRangelInvalid signals, such that the ADC can actually detect them. In order to guarantee that, the periods between the non-overlapping reset periods for the two latches must be longer than the sampling period.



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Drawing title:

Range Valid Signal Stretching

Drawing number:	8	Rev:	2	Format:	Laboratory:	TIK	Project:	range_valid_stretching.SchDoc
Date:	16.11.2016	10:14:46		A4 Q	Drawn by:	Stefan Lippuner		
File:	C:\Users\user\Documents\Rocketlogger\hardware\pcb\Cape\range_valid_stretching.SchDoc							

