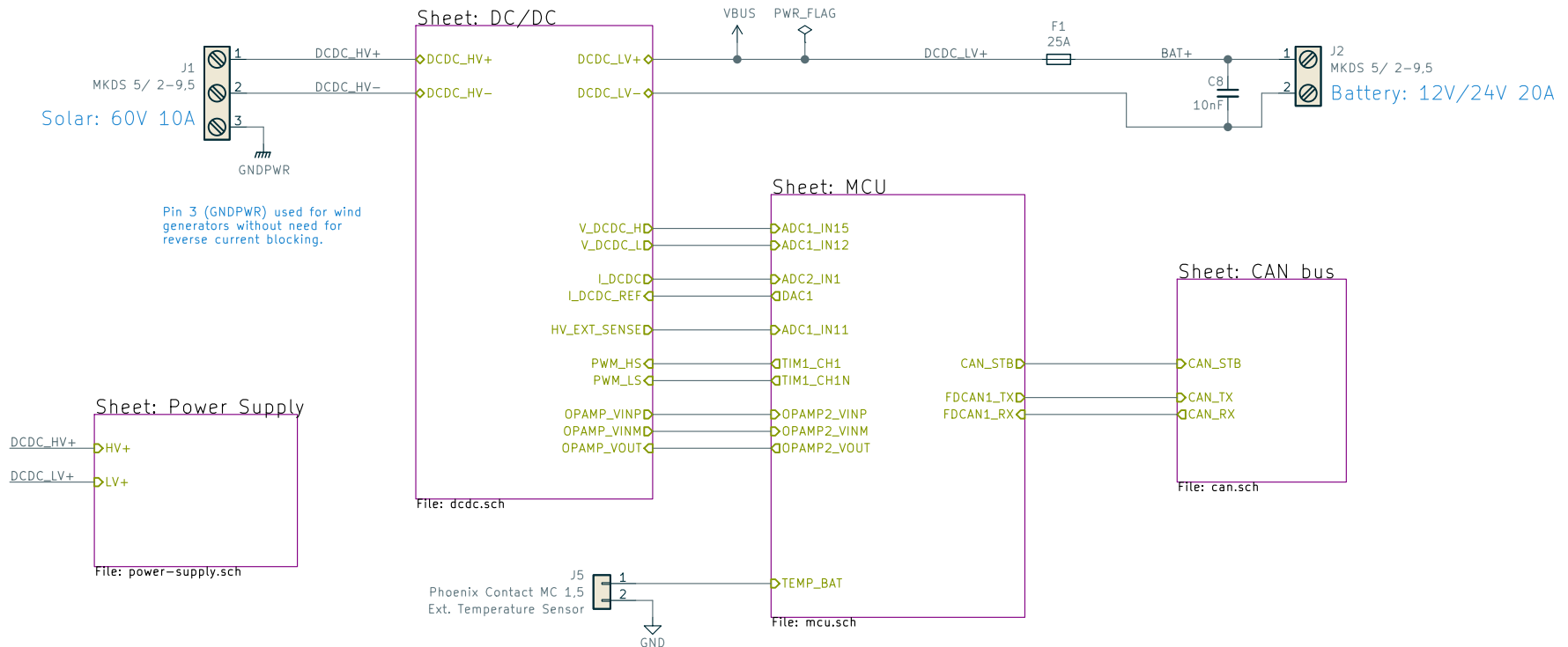


MPPT charge controller for DIN rail mounting



MPPT 2420 RC

Libre Solar Technologies GmbH
Website: <http://libre.solar>

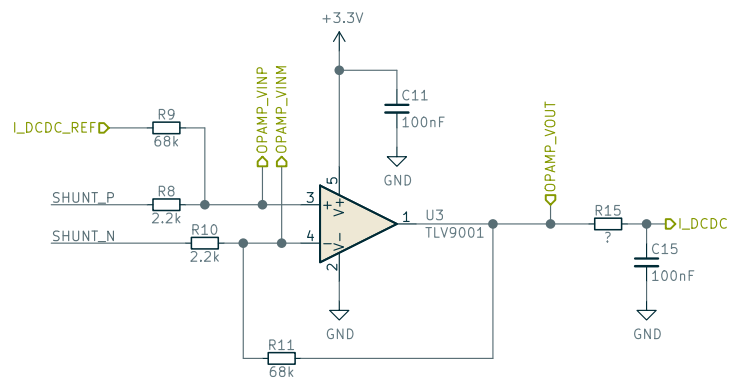
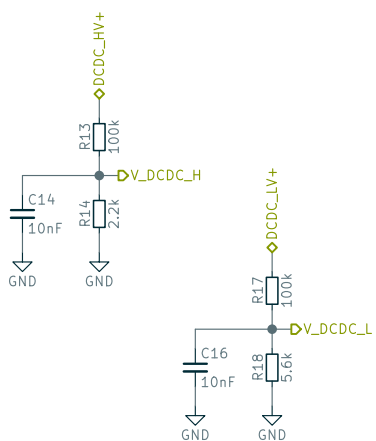
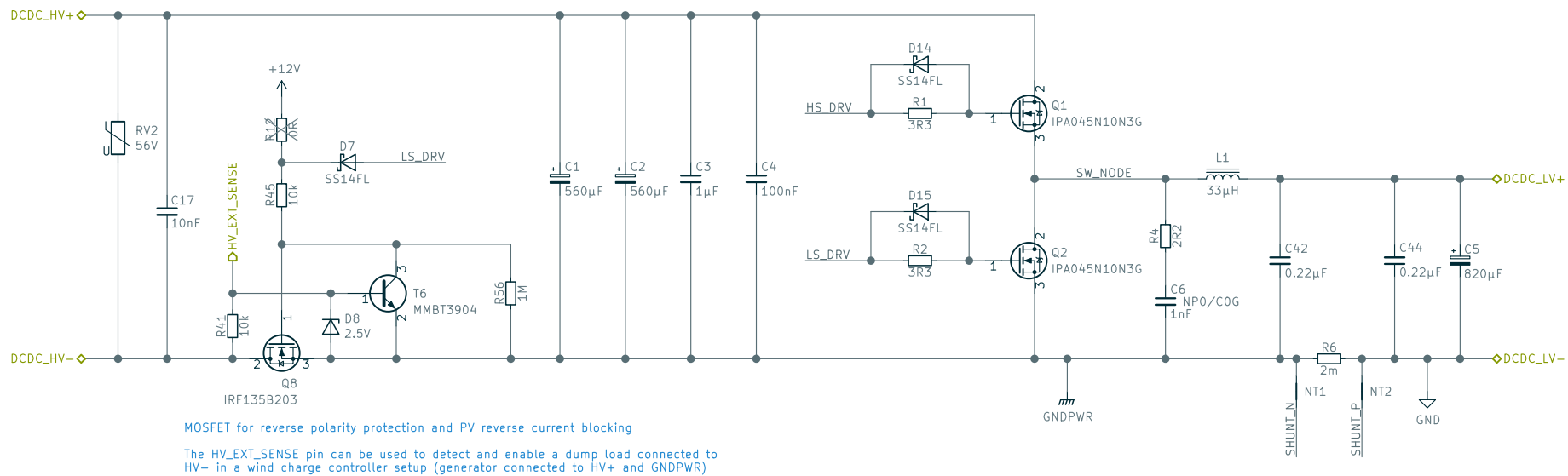
Sheet: /
File: mppt-2420-rc.sch
Author: Martin Jäger

Size: A4 Date: 2020-02-20
KiCad E.D.A. kicad 5.1.5

LIBRESOLAR

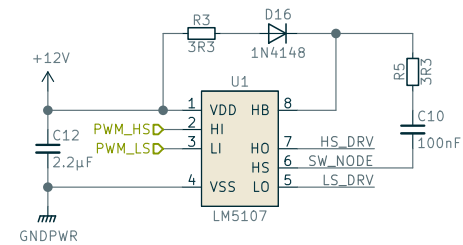
Rev: 0.1
Page: 1/5

DC/DC power stage



Use MCU internal OPAMP if U3 is not populated.

MOSFET driver



MPPT 2420 RC

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Website: <http://libre.solar>

Sheet: /DC/DC/
File: dcdc.sch

Author: Martin Jäger

Size: A4	Date: 2020-02-20
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KiCad E.D.A. kicad 5.1.5

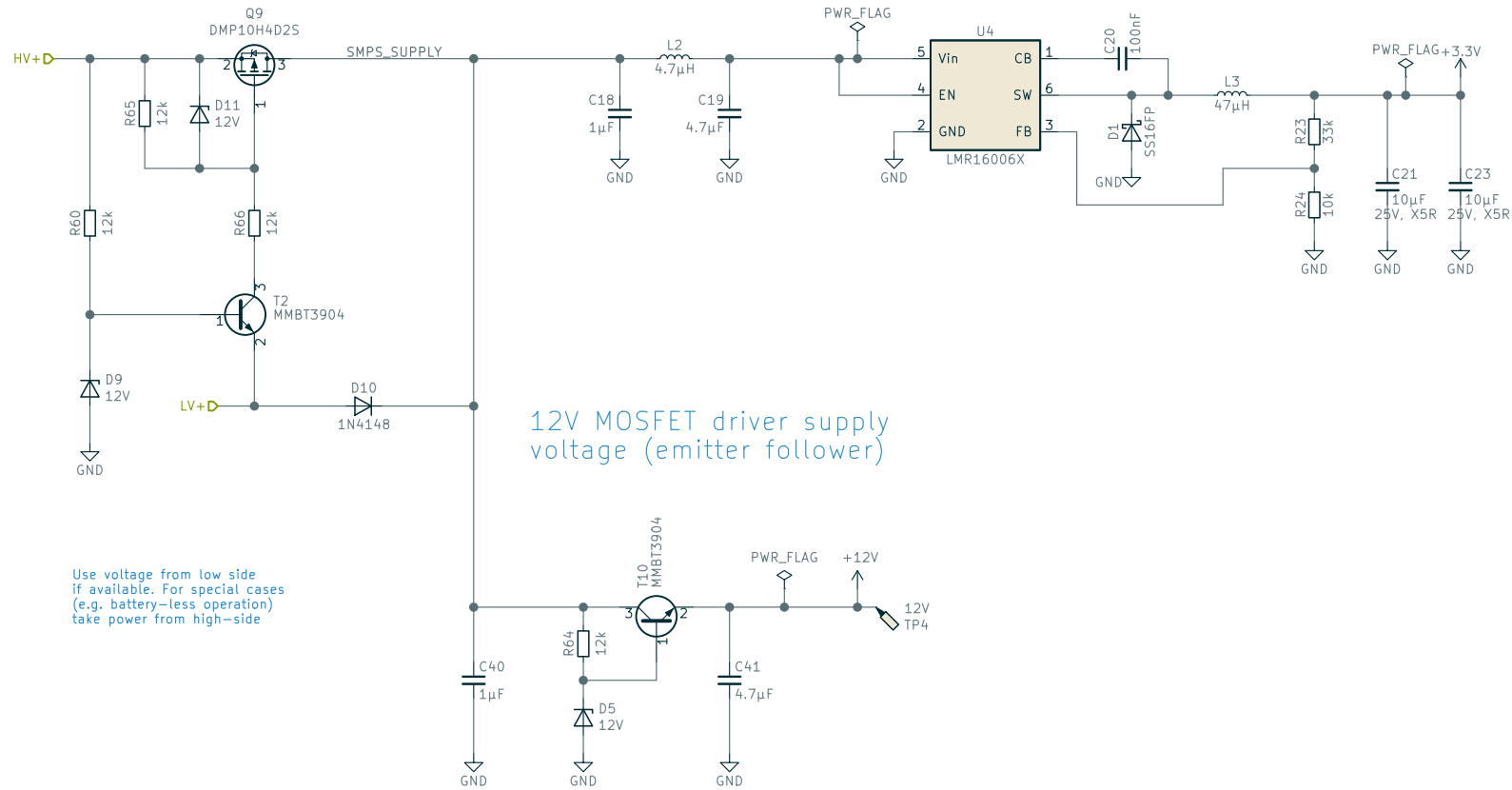


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Rev: 0.1

Page: 2/5

HV/LV side to 3.3V (SMPS)



12V MOSFET driver supply voltage (emitter follower)

MPPT 2420 RC

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Website: <http://libre.solar>

Sheet: /Power Supply/
File: power-supply.sch

Author: Martin Jäger

Size: A4 Date: 2020-02-20

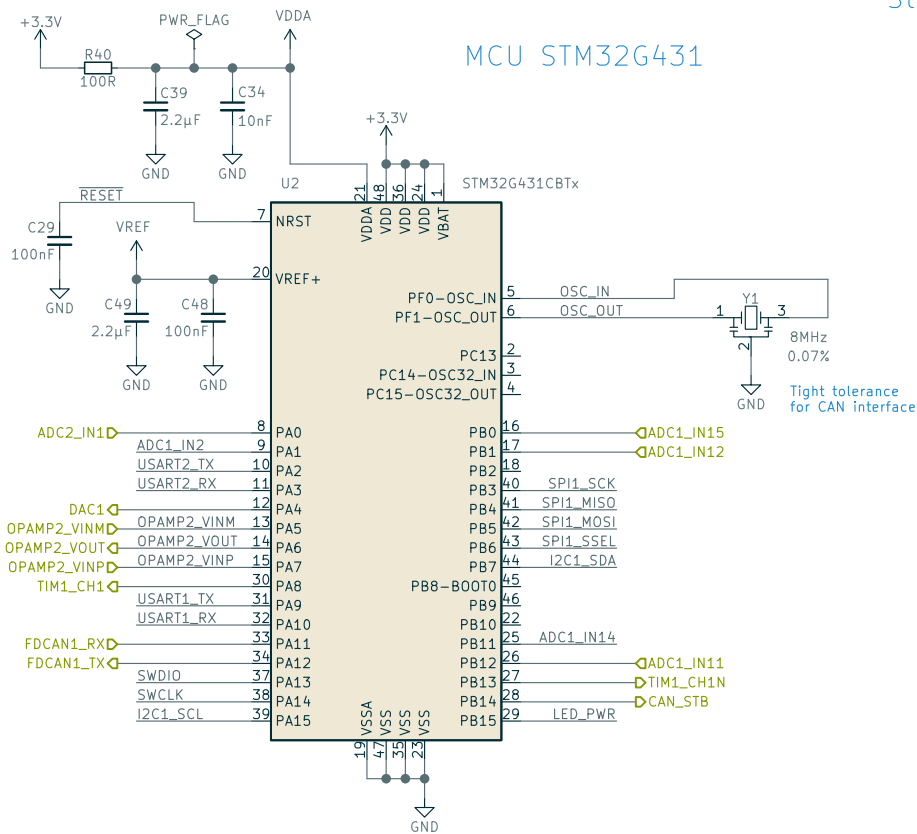
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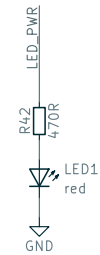
Rev: 0.1

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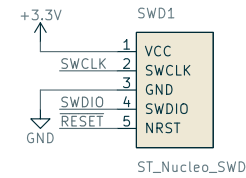
If not stated otherwise, all MLCC 50V X7R



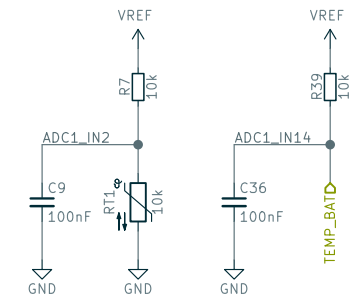
Status LED



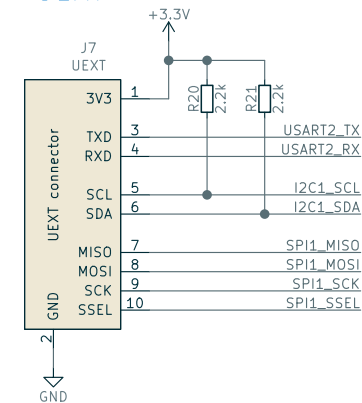
STM Nucleo SWD and USART



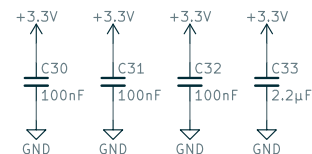
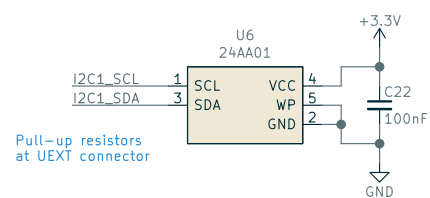
Temperature (ext./int.)



UEXT



EEPROM



If not stated otherwise, all MLCC 50V X7R

MPPT 2420 RC

Libre Solar Technologies GmbH
Website: <http://libre.solar>

Sheet: /MCU/
File: mcu.sch

Author: Martin Jäger

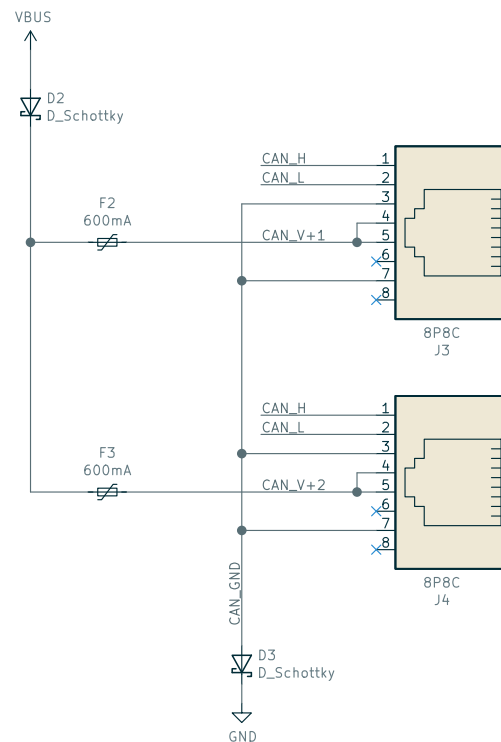
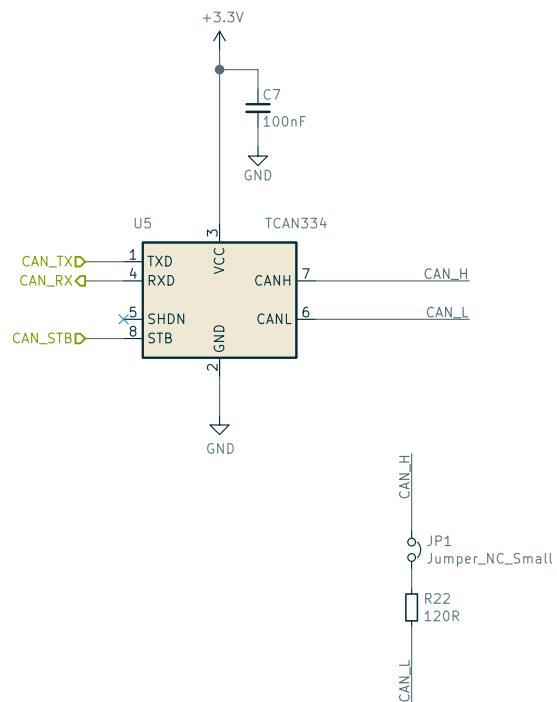
Size: A4 Date: 2020-02-20

KiCad E.D.A. kicad 5.1.5

LIBRESOLAR

Rev: 0.1


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CAN bus power supply
 - 10V-32V
 - 600 mA (like PoE)

Diodes necessary to prevent
 separate GND loops.

Polyfuse to prevent
 over-current in daisy-chained
 bus with multiple sources and
 sinks.

MPPT 2420 RC		 LIBRESOLAR
Libre Solar Technologies GmbH		
Sheet: /CAN bus/ File: can.sch		
Size: A4	Date: 2020-02-20	Rev:
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