

SMPS power pre-regulator with 100% duty cycle

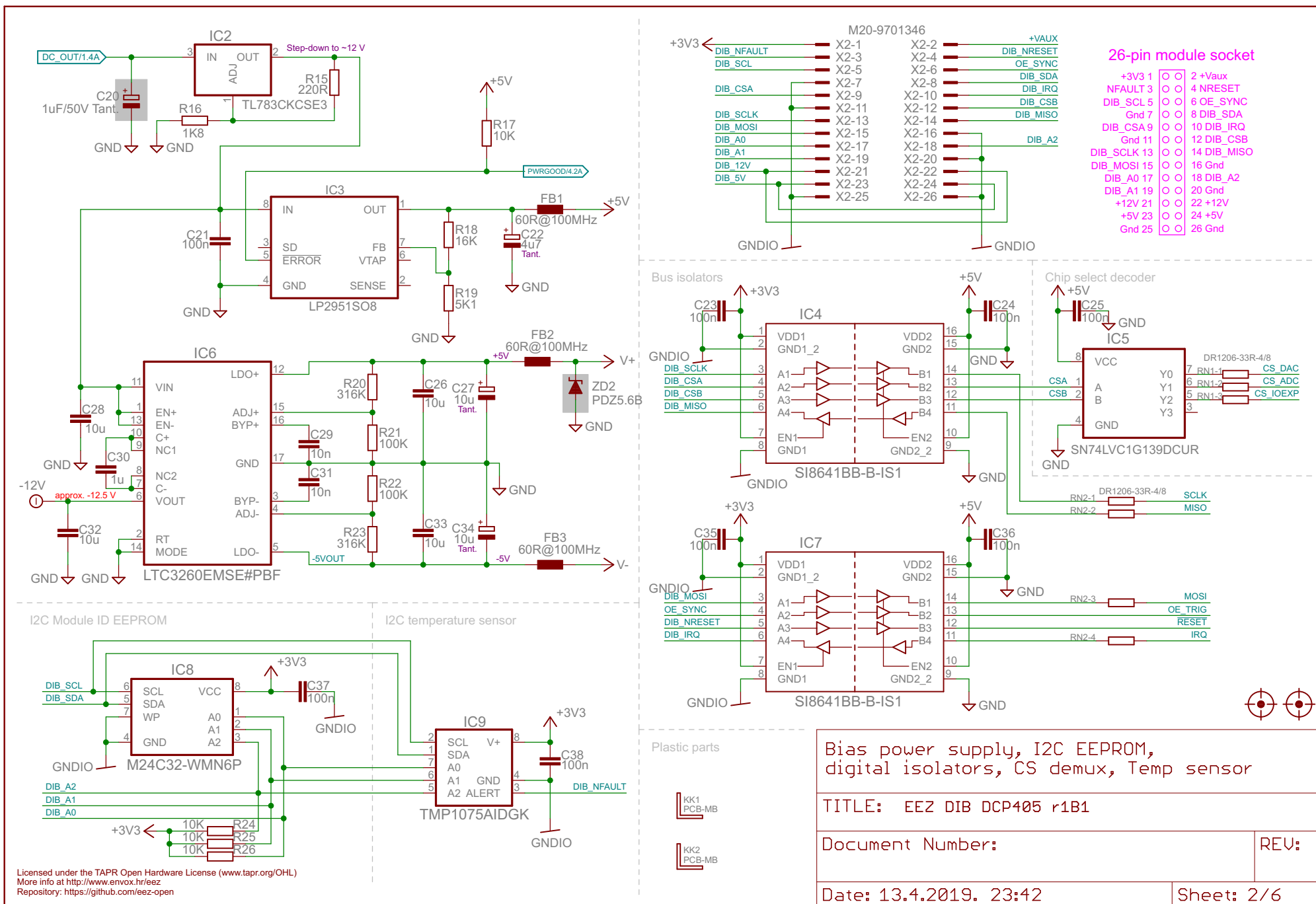
TITLE: EEZ DIB DCP405 r1B1

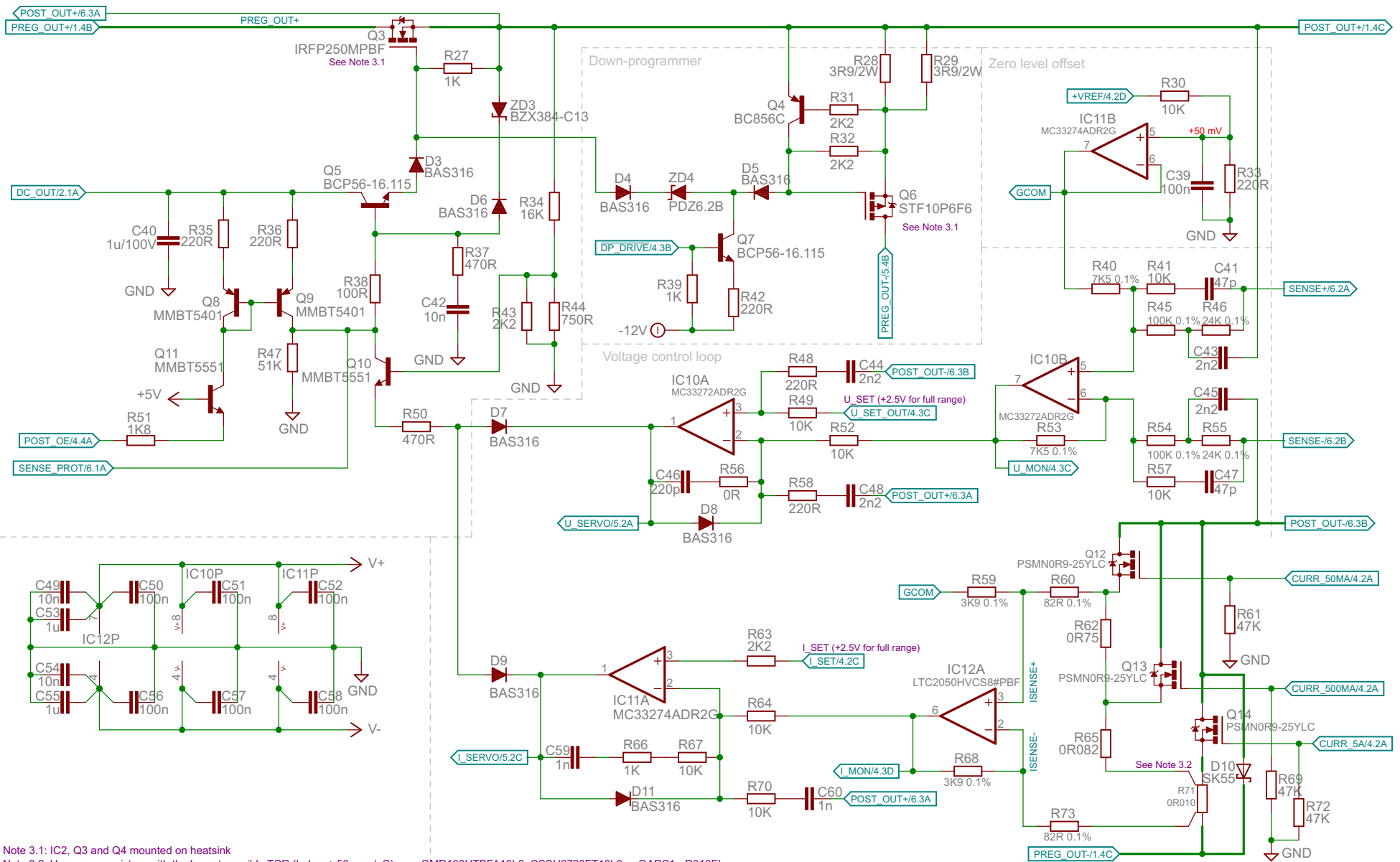
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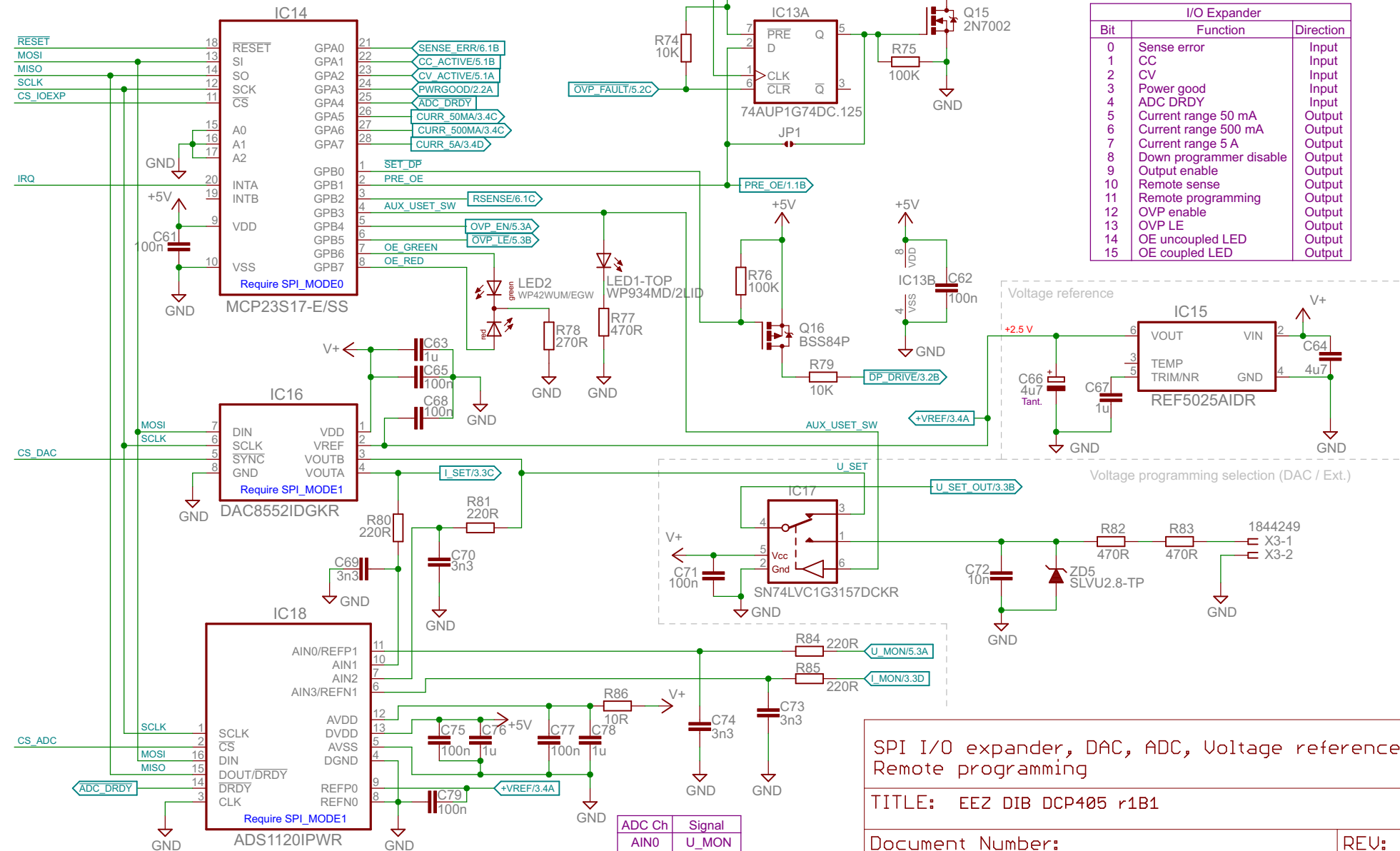


Note 3.1: IC2, Q3 and Q4 mounted on heatsink

Note 3.2: Use power resistors with the lowest possible TCR (below ± 50 ppm/oC), e.g. GMR100HTBFA10L0, CSSH2728FT10L0 or OARS1 - R010FI

Digital control (SPI)

OE_TRIG



SPI I/O expander, DAC, ADC, Voltage reference
Remote programming

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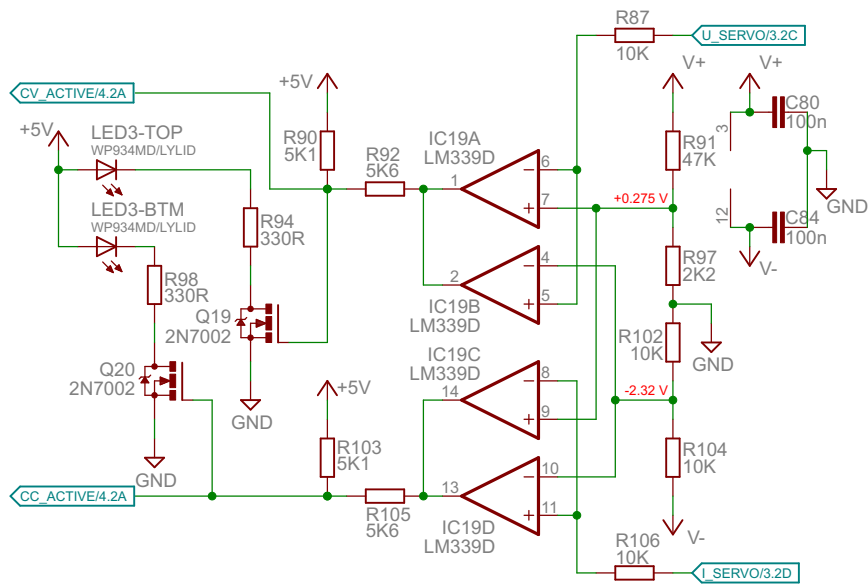
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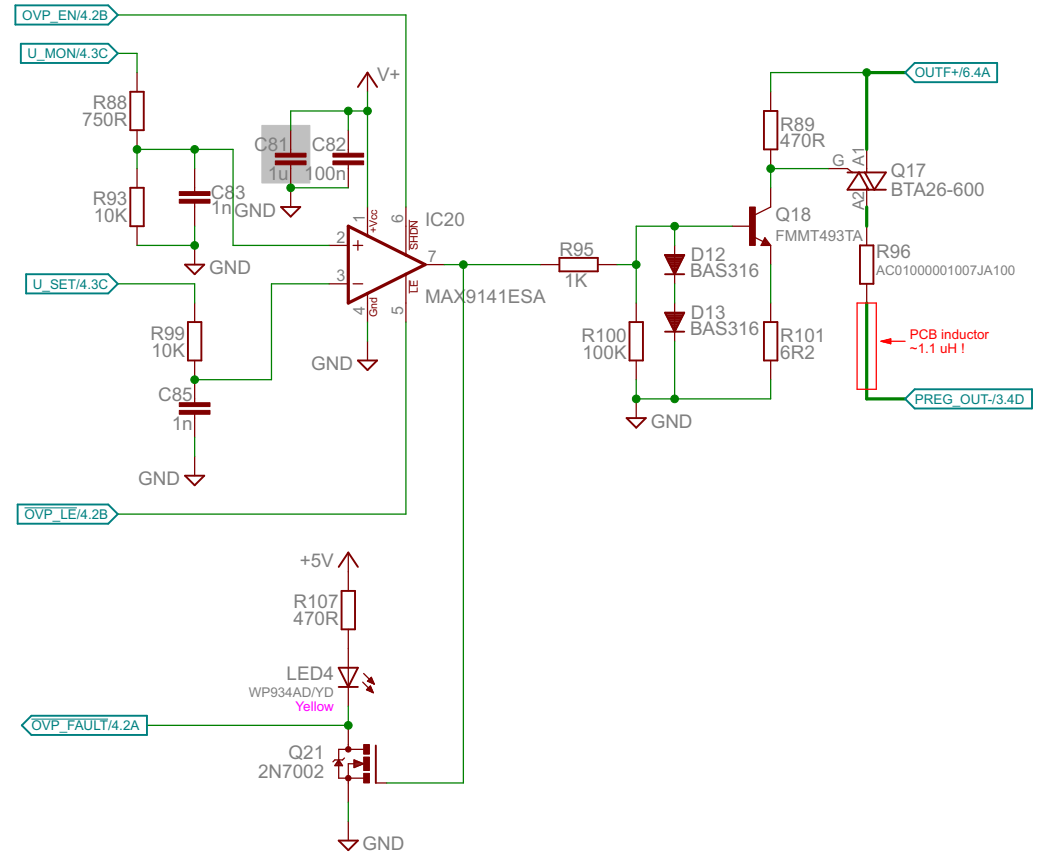
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ADC Ch	Signal
AIN0	U_MON
AIN1	I_SET
AIN2	U_SET
AIN3	I_MON

Constant Voltage (CV) and Constant Current (CC) mode detection and indication



Over-voltage protection (OVP)



CC/CV mode detection and indication, OVP

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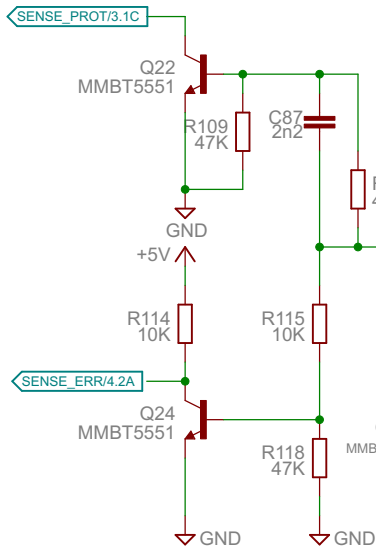
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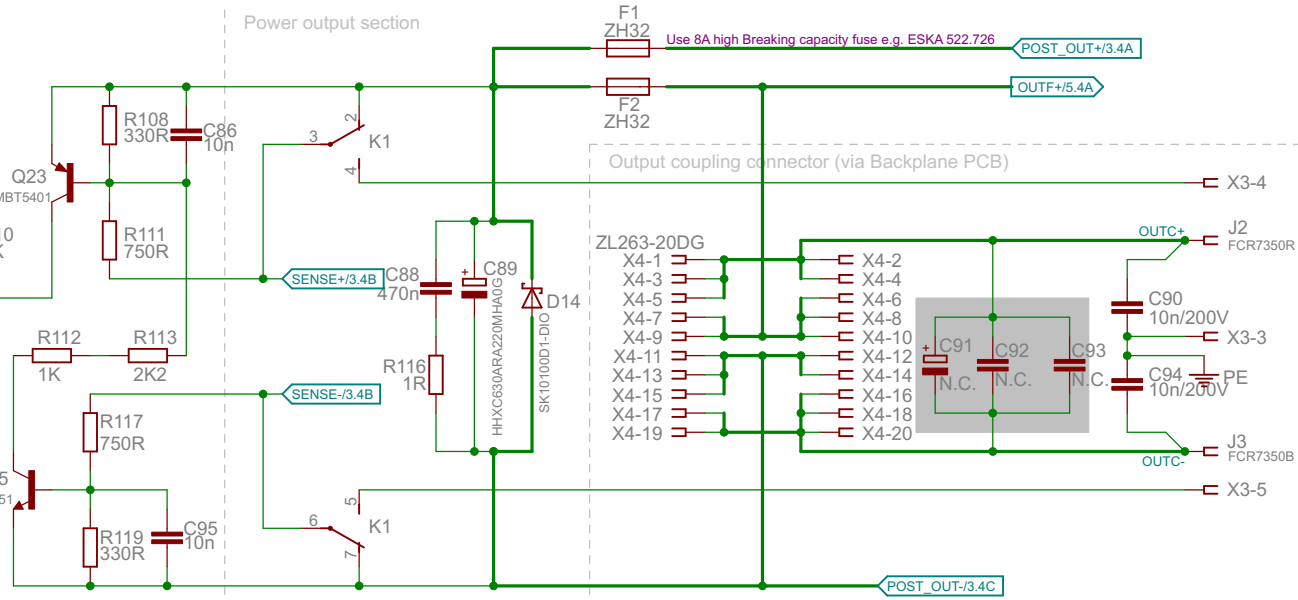
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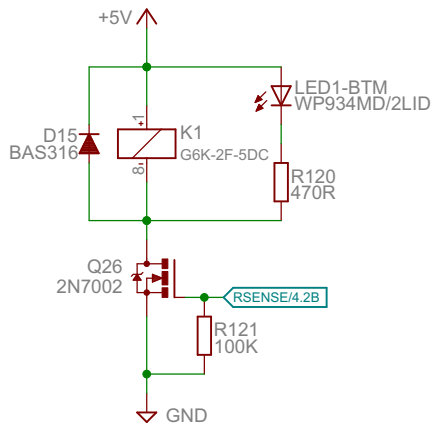
Remote sense reverse polarity detection



Power output section



Remote sense selection



20-pin power socket

OUTC+ 1	2 OUTC+
OUTC+ 3	4 OUTC+
OUTC+ 5	6 POST_OUT+ (fused)
POST_OUT+ (fused) 7	8 POST_OUT+ (fused)
POST_OUT+ (fused) 9	10 POST_OUT+ (fused)
POST_OUT- 11	12 POST_OUT-
POST_OUT- 13	14 POST_OUT-
POST_OUT- 15	16 OUTC-
OUTC- 17	18 OUTC-
OUTC- 19	20 OUTC-

Rsense polarity protection
Output coupling, Rsense relay

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