

SMPS power pre-regulator with 100% duty cycle

TITLE: EEZ DIB DCP405 r2B6

Document Number:

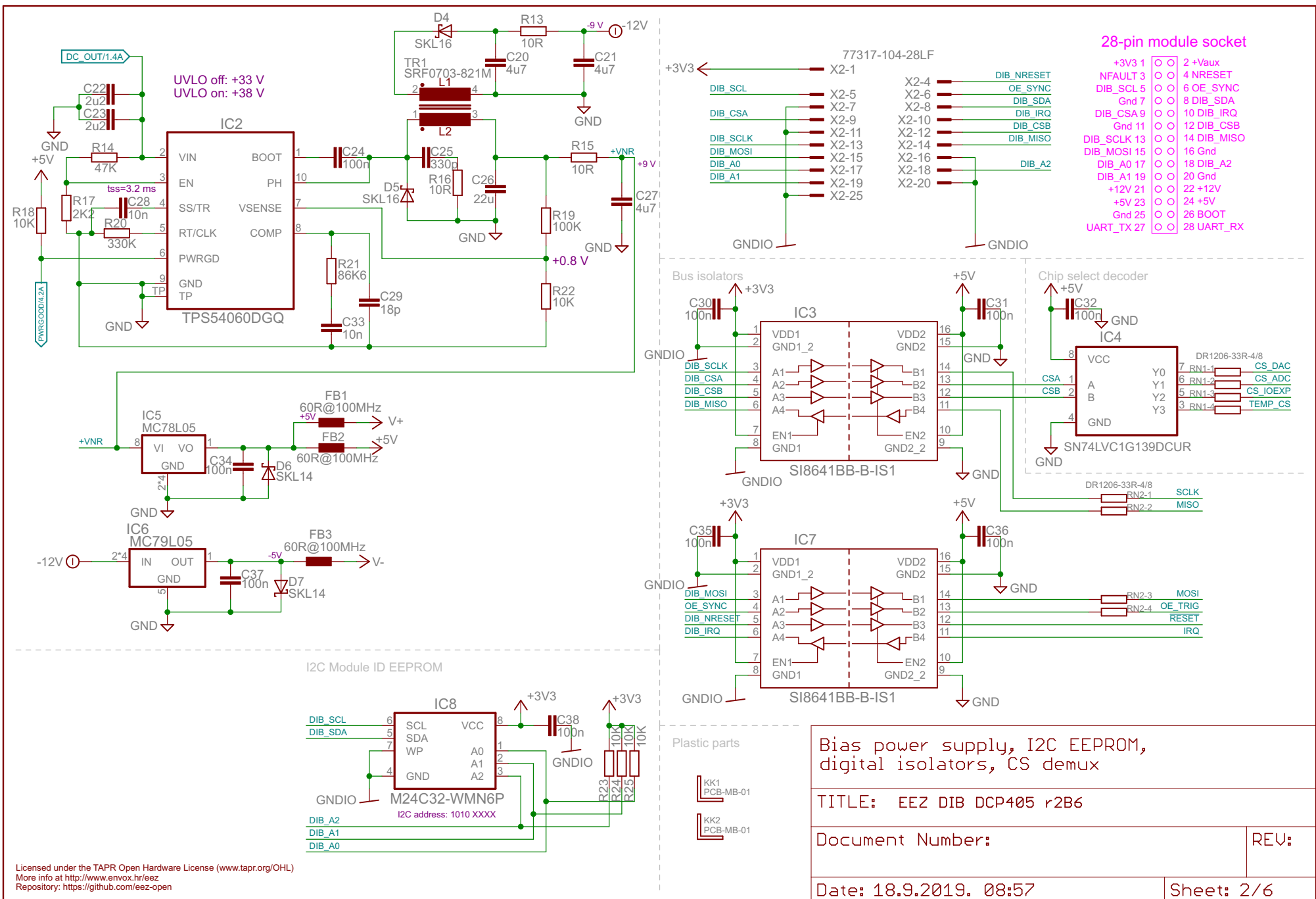
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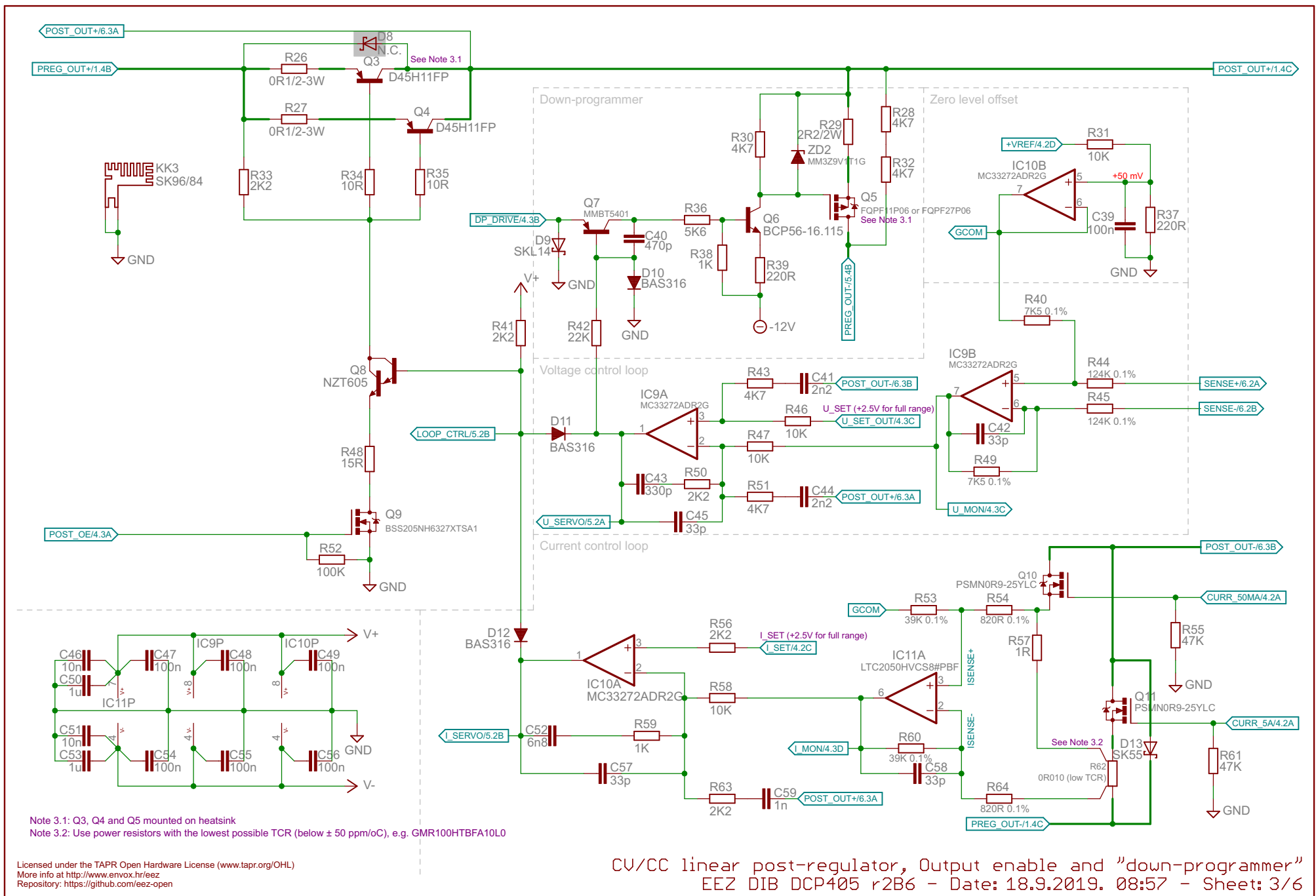
Date: 18.9.2019. 08:57

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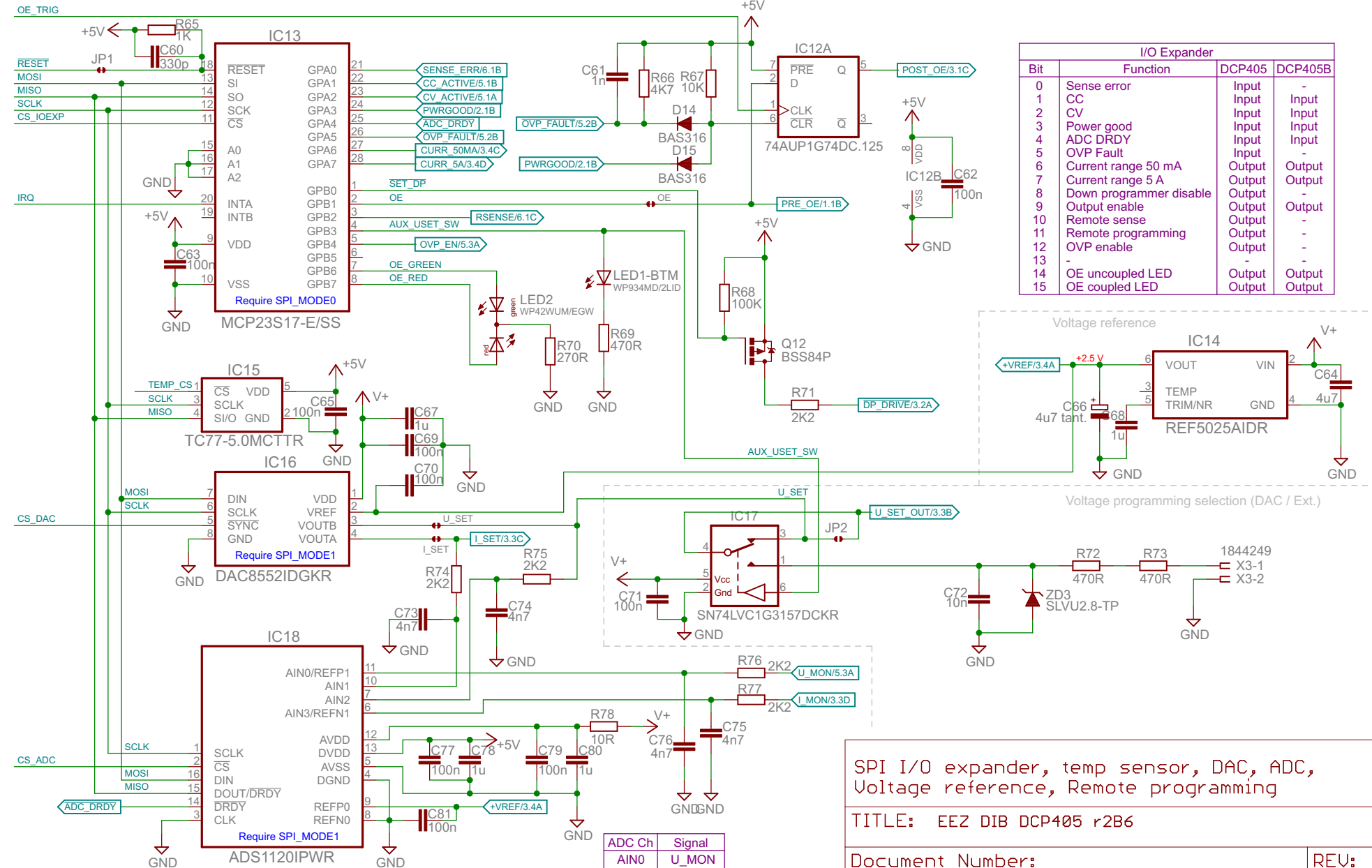
Note 1.1: Possible alternative AUIRFR5305, IRFR5305, SPD30P06P or other with similar or lower input capacitance
 Note 1.2: WE 7447709330, WE 7443551331, Coilcraft MSS1210-333, Coilcraft XAL1510-333, Vishay IHL4040DZER470M11, etc.

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 More info at <http://www.envox.hr/eez>
 Repository: <https://github.com/eez-open>





Digital control (SPI)



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

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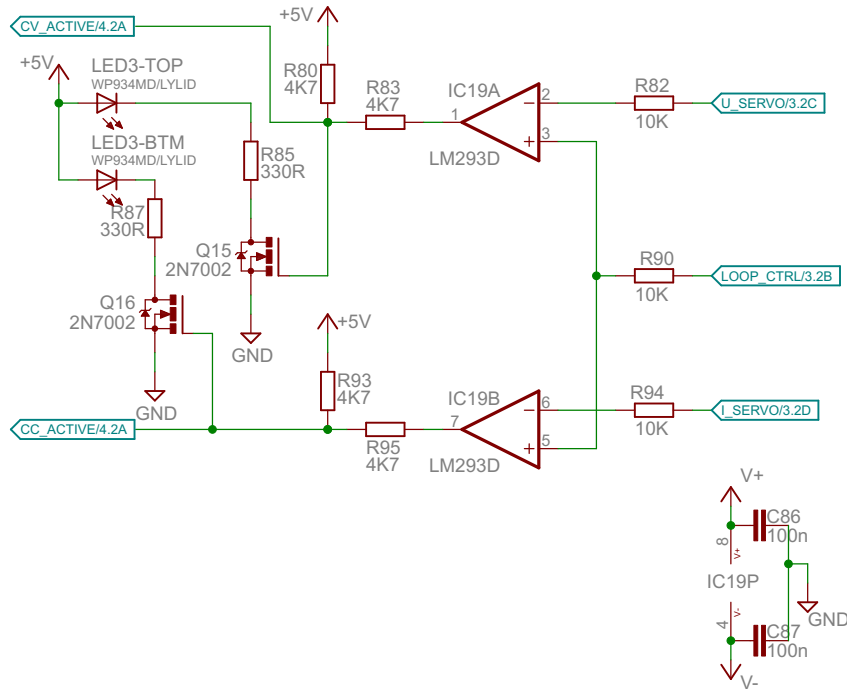
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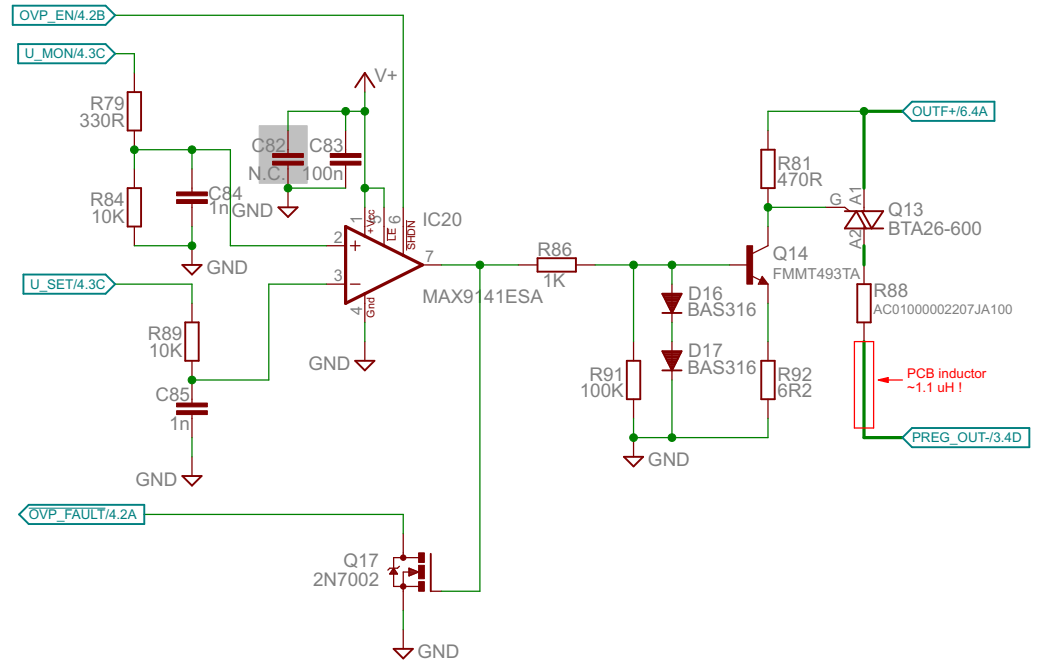
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| ADC Ch | Signal |
|--------|--------|
| AIN0 | U_MON |
| AIN1 | I_SET |
| AIN2 | U_SET |
| AIN3 | I_MON |

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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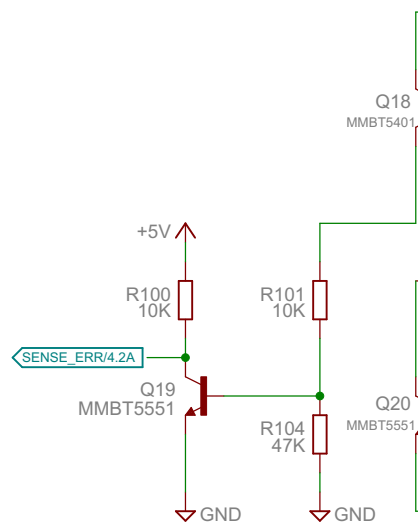
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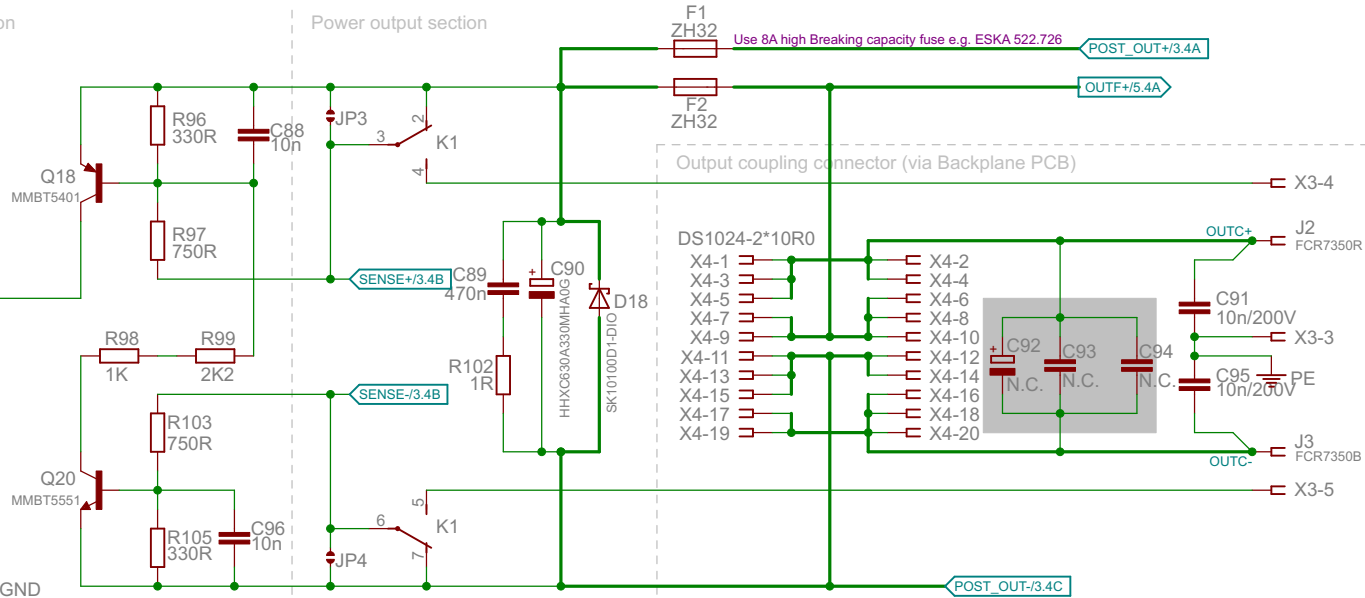
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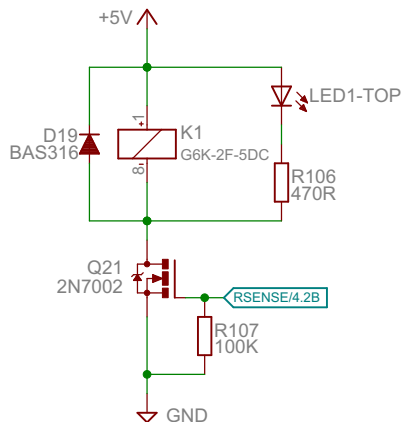
Remote sense reverse polarity detection



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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