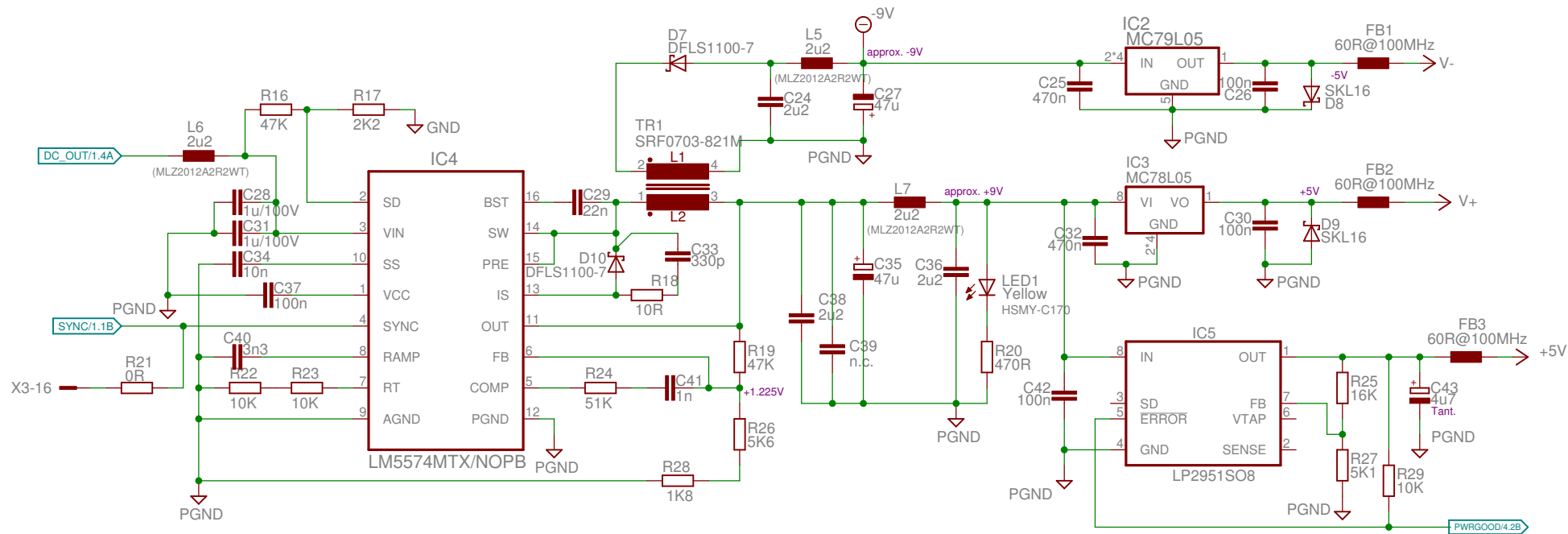


Note 1.1: Possible alternative AU1RFR5305, SUD19P06-60, SPD30P06P or other with similar or lower input capacitance
 Note 1.2: WE 7447709330, WE 7443551331, Coilcraft MSS1210-333, Coilcraft XAL1510-333, Vishay IHL4040DZER470M11, etc.
 Note 1.3: Use 240K for 30 VAC main transformer
 Note 1.4: Install 0R only if 100% Duty cycle feature for Low Ripple mode is not needed
 Note 1.5: Use R020 for 0-3.12 A or R015 for 0-4.16 A range

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



SMPS power pre-regulator with 100% duty cycle	
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Bias power supply with SMPS pre-regulator

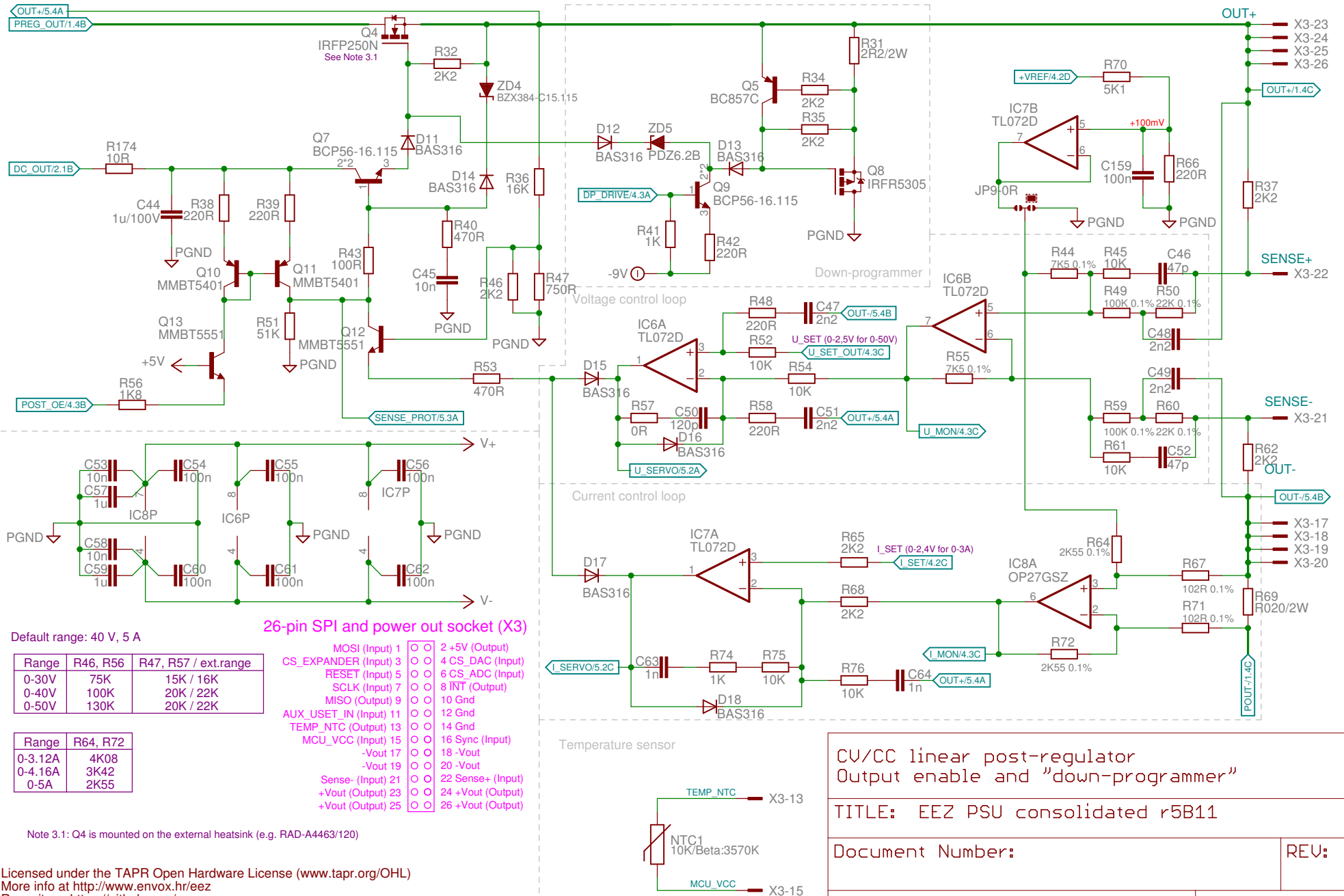
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CV/CC linear post-regulator
Output enable and "down-programmer"

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Digital control (SPI)

SSW-113-02-T-D-RA

X3-9 PS_MISO

X3-5 PS_RESET

X3-1 PS_MOSI

X3-7 PS_SCLK

X3-3 CS_EXPANDER

+5V

X3-2

X3-10

X3-12

X3-14

PGND

X3-8 INT

JP2-0R

X3-4 CS_DAC

X3-6 CS_ADC

PGND

PGND

PGND

PGND

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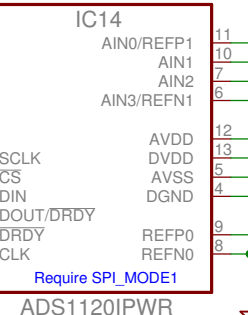
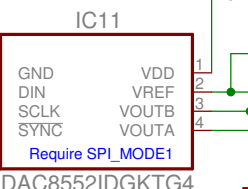
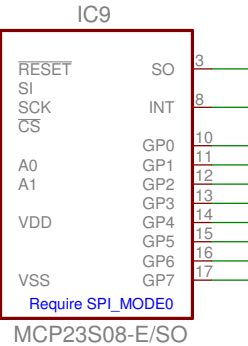
PGND

PGND

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+5V

R77 100K

SET_DP

Q14 BSS84P

R78 10K

DP_DRIVE/3.2A

SENSE_ERR/5.3B

CC_ACTIVE/5.1B

SET_100%/1.4D

CV_ACTIVE/5.1A

PWRGOOD/2.4C

PRE_OE/1.1B

POST_OE/3.1B

AUX_USET_SW

Q15 2N7002

R79 100K

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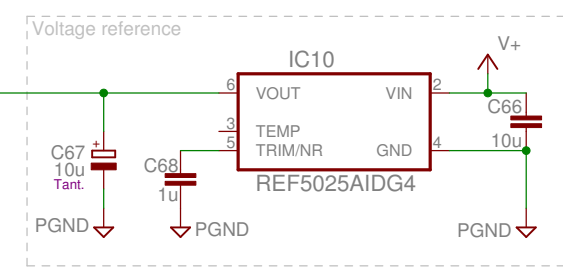
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C67 10u Tant.

C68 1u

PGND

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U_SET

U_SET_OUT/3.3B

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V+

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U_MON/3.3B

I_MON/3.3C

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U_MON/3.3B

I_MON/3.3C

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U_MON/3.3B

I_MON/3.3C

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I_MON/3.3C

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I_MON/3.3C

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U_MON/3.3B

I_MON/3.3C

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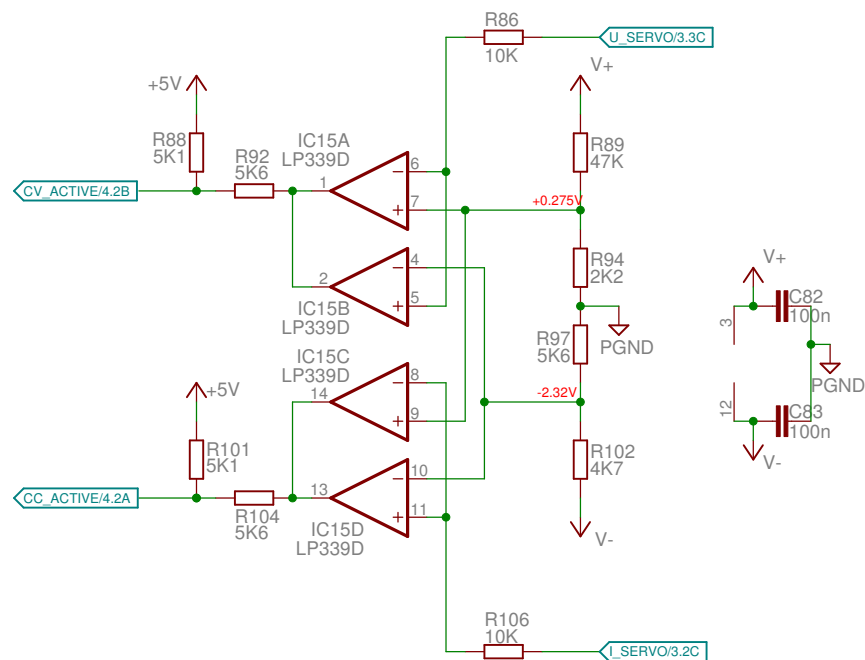
V+

V+

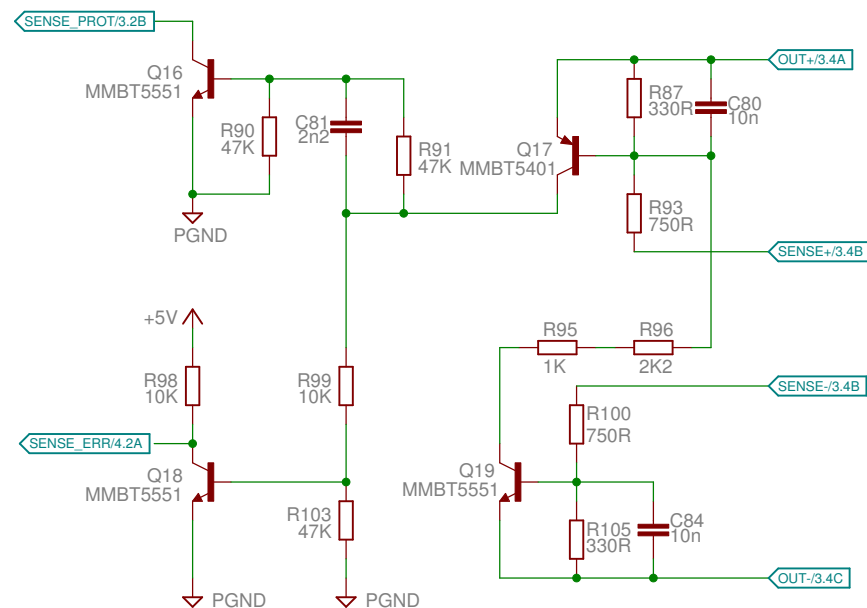
V+

V+

Constant Voltage (CV) and Constant Current (CC) mode indicator



Remote sense reverse polarity detection



CC/CV indicators, Sense error detection

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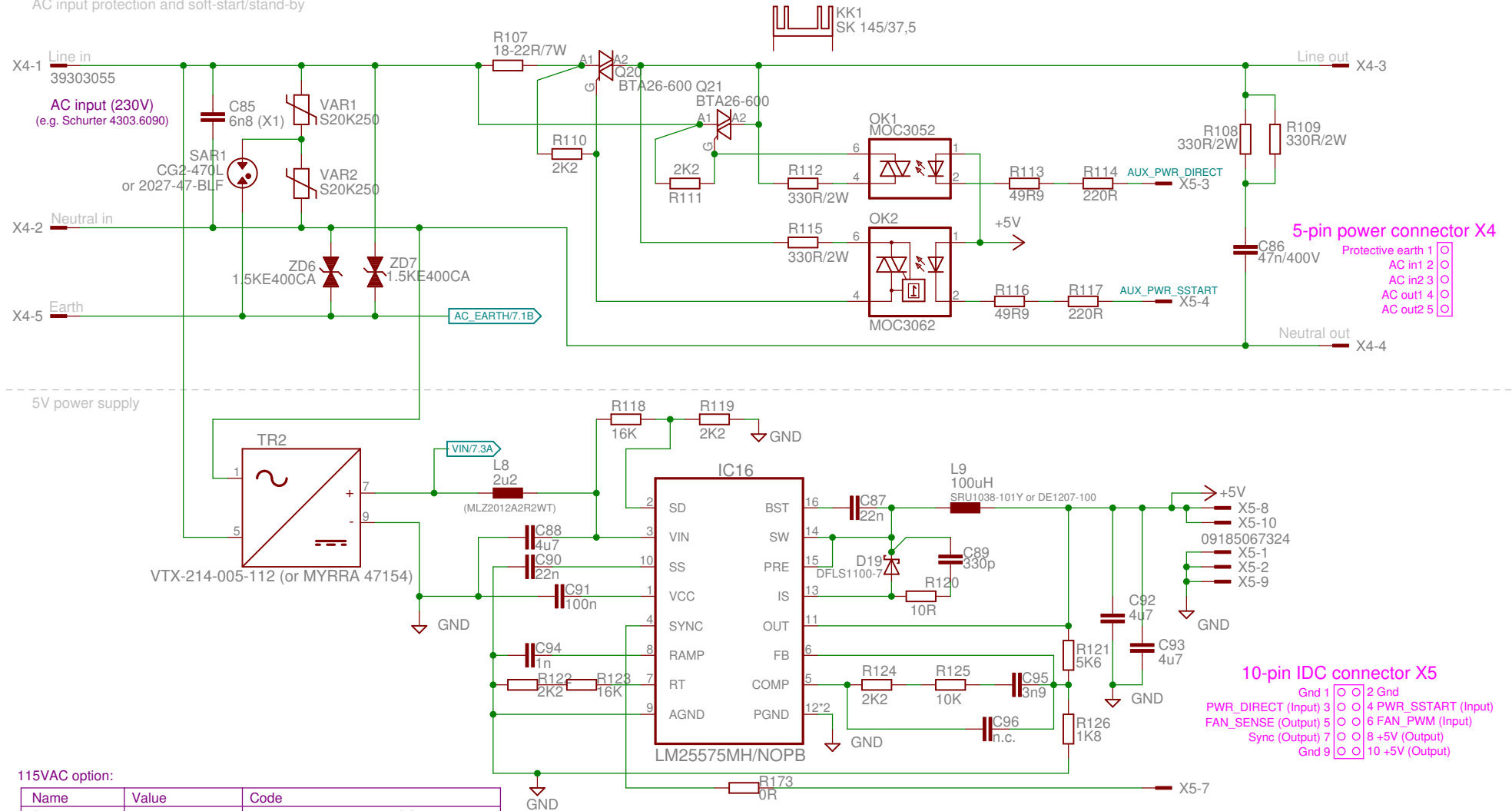
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AC input protection and soft-start/stand-by



115VAC option:

Name	Value	Code
SAR1	2027-23-BLF	Farnell: 1780455, TME: CG2-230L
TR2	VPP24-210	Digikey: 237-1085-ND Mouser: 553-VPP24-210 Newark: 93F8764
VAR1, VAR2	or AC/DC module Myrra 47202	Farnell: 2469211
ZD1, ZD2	S20K140	Farnell: 1004387, TME: SIOV-S20K140
	1.5KE200CA	Farnell: 1837117, TME: 1.5KE200CA

AC input protection, in-rush current limiter
+5V/1A power supply

TITLE: EEZ PSU consolidated r5B11

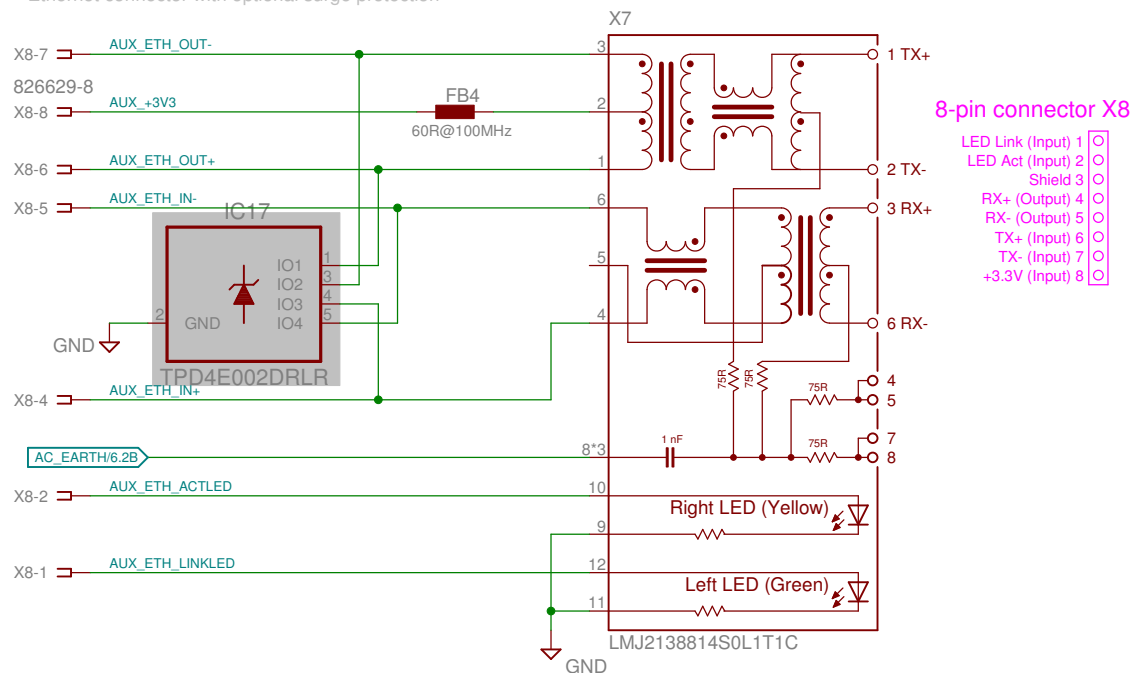
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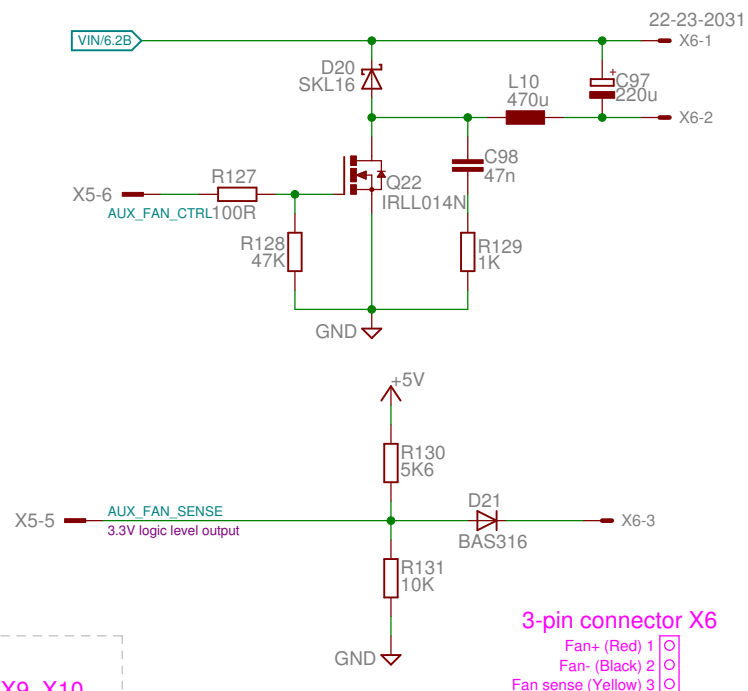
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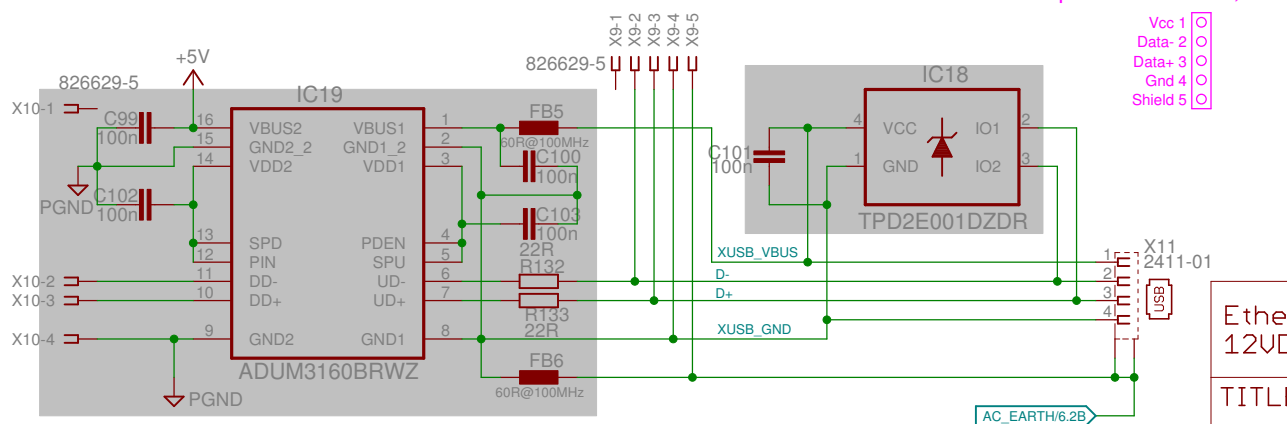
Ethernet connector with optional surge protection



12VDC fan control



USB connector with optional isolator and surge protection



Note 7.1: Mount X4 and X8 on the opposite (top) side of the PCB. Use 14 mm (e.g. Bossard B3X14/BN3320) for enclosure with 3 mm rear panel

Ethernet and USB PCB connectors
12VDC fan driver (max. 300 mA)

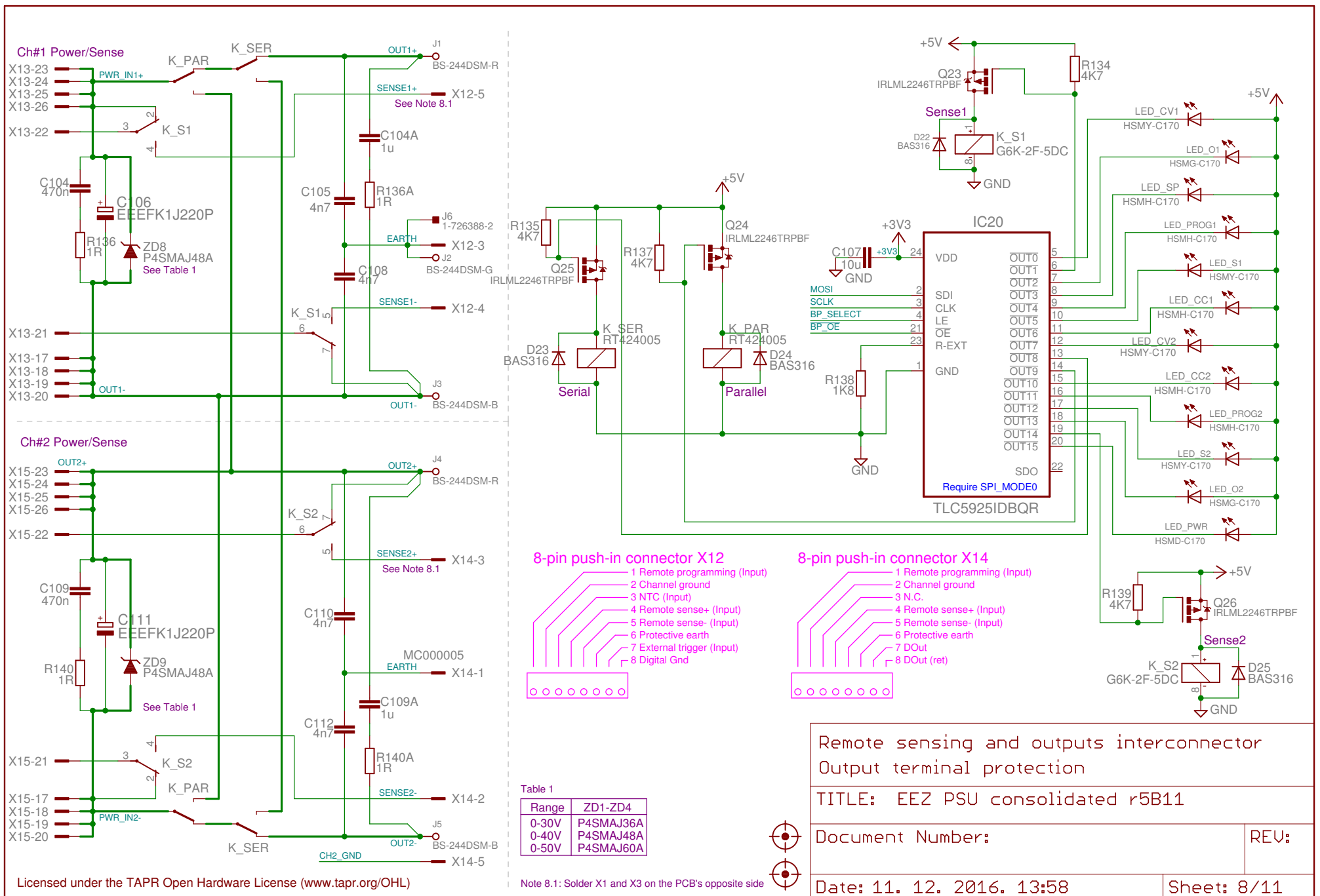
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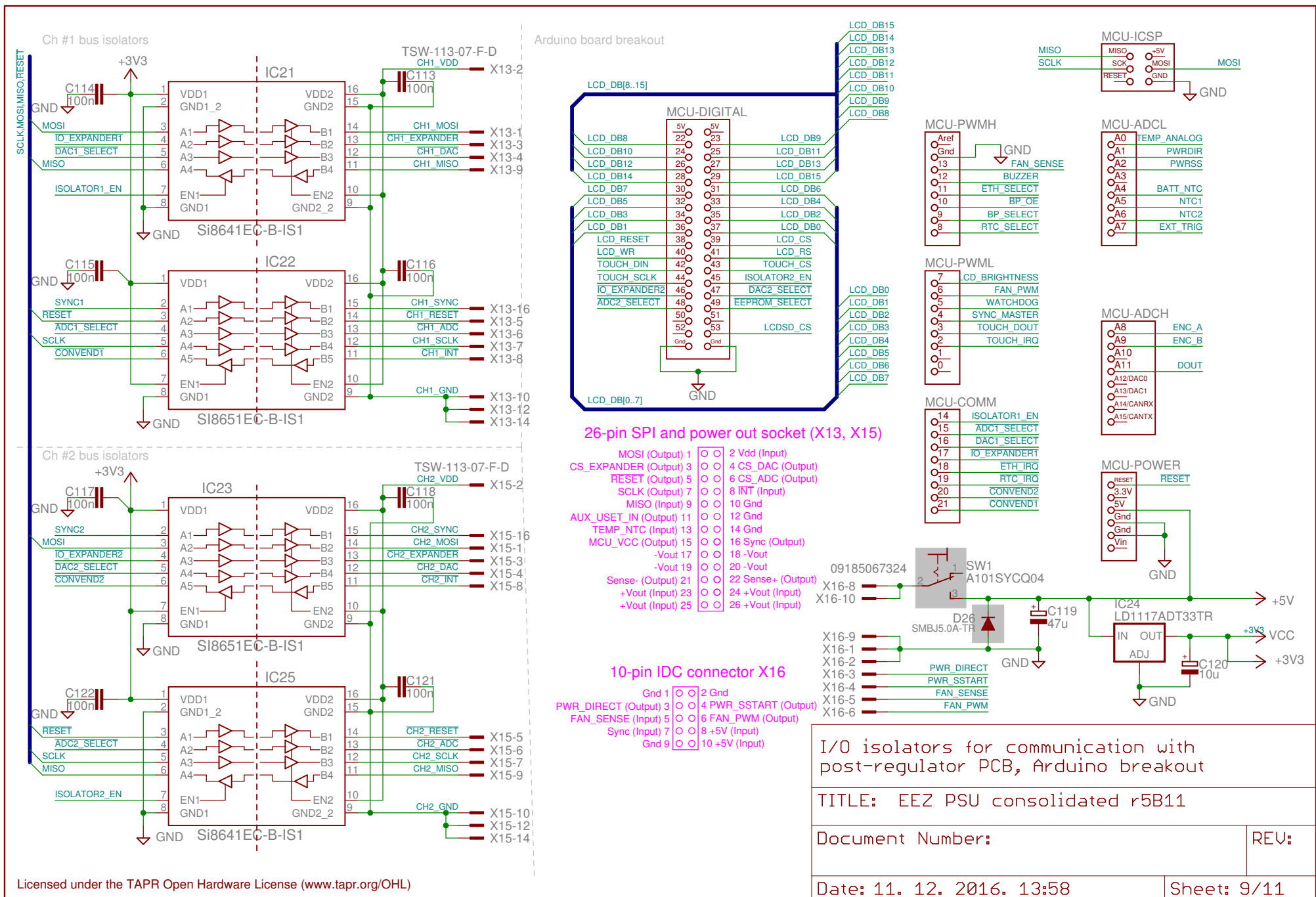
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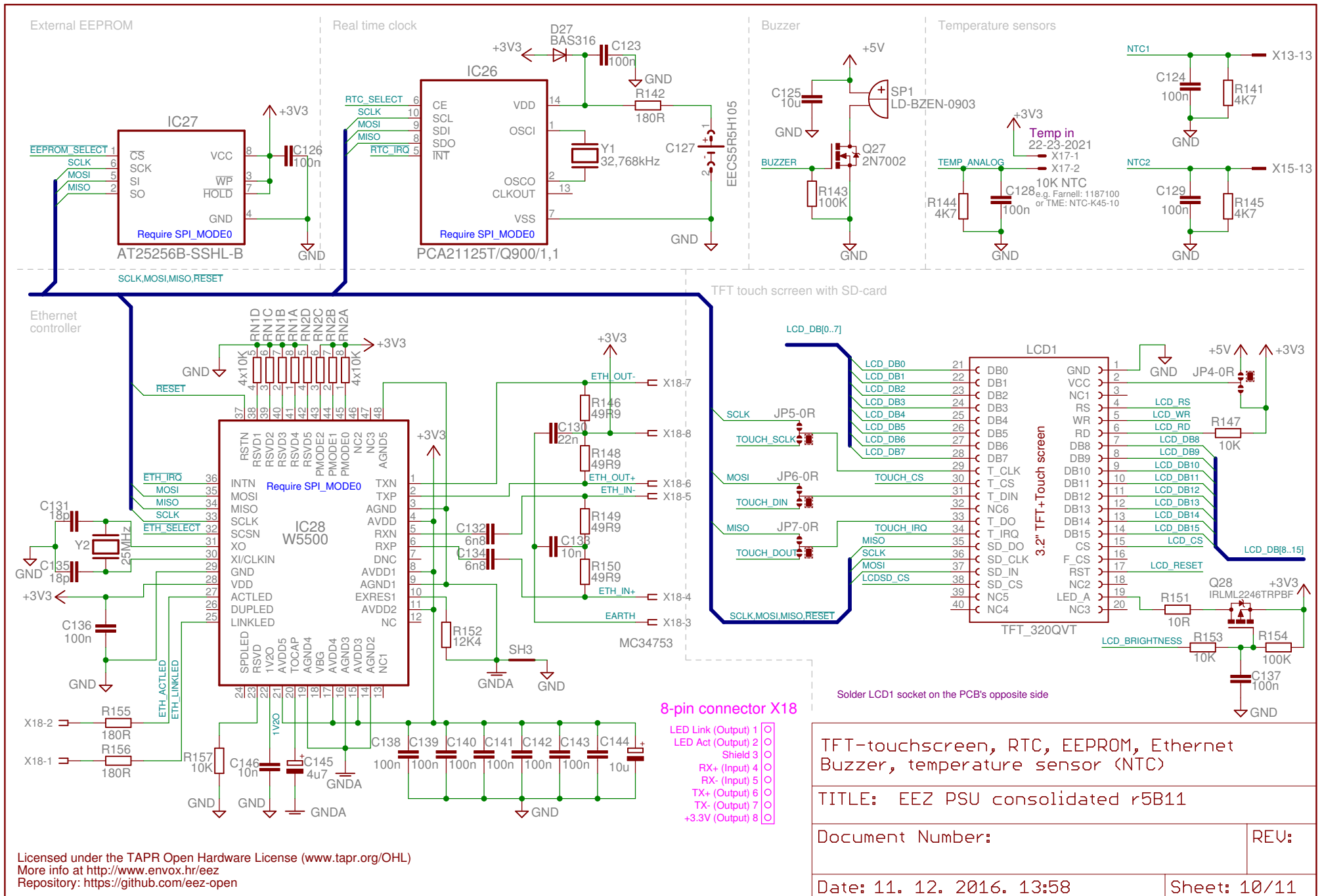
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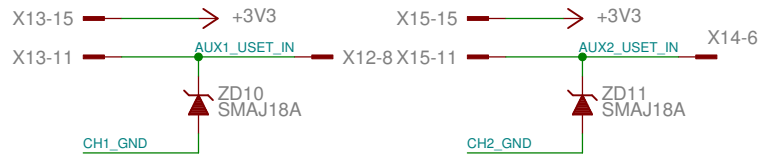
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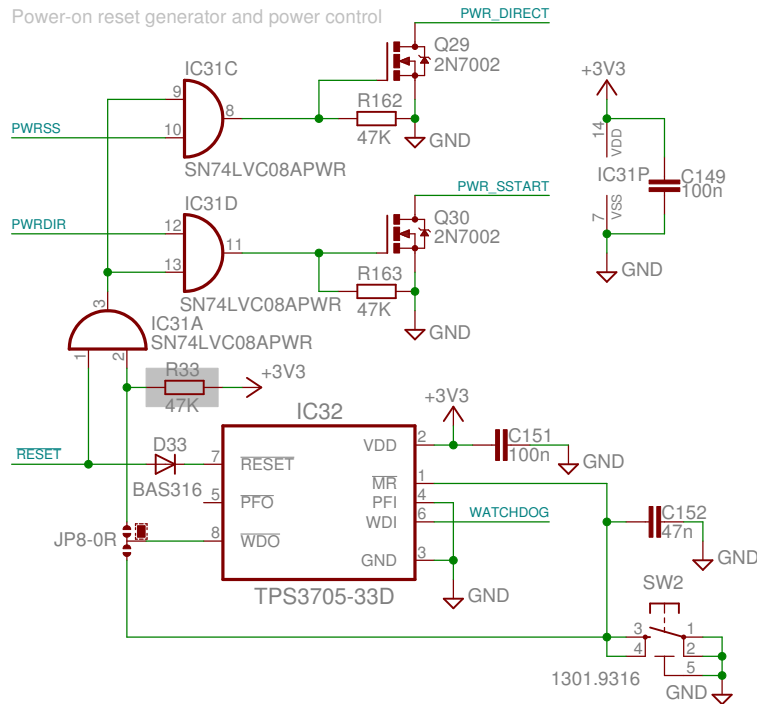




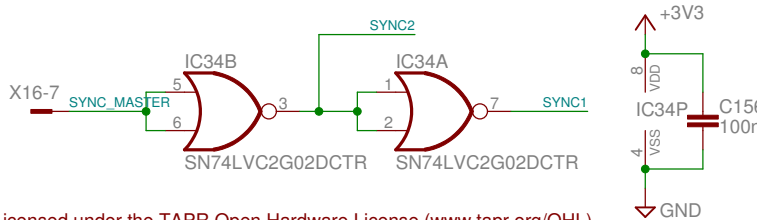
Remote programming inputs



Power-on reset generator and power control

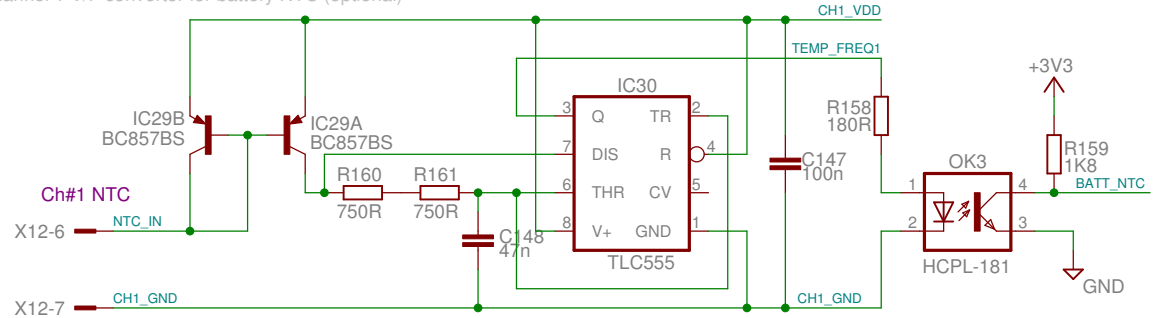


Master sync signal phase shifting

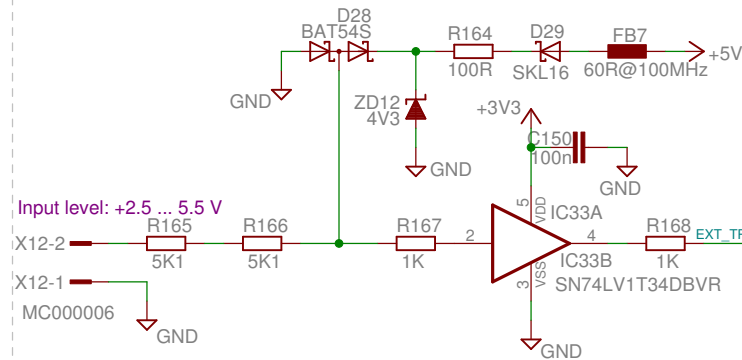


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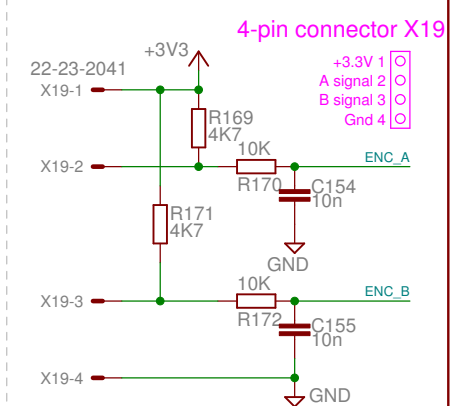
Channel 1 V/F converter for battery NTC (optional)



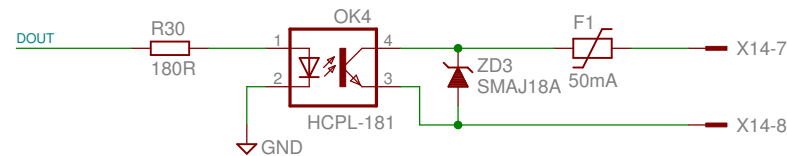
External trigger protection and level shifter/buffer



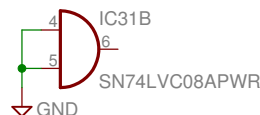
Rotary encoder (optional)



Opto-isolated digital output



Not used



Reset control, soft-start driver, encoder (optional)
V/F converter for battery NTC, External trigger

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