

Note 1.1: Possible alternative AUFR5305, 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  
 Note 1.6: Replace ZD1 and C3, C5, C6 if Vin is above 50 V

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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

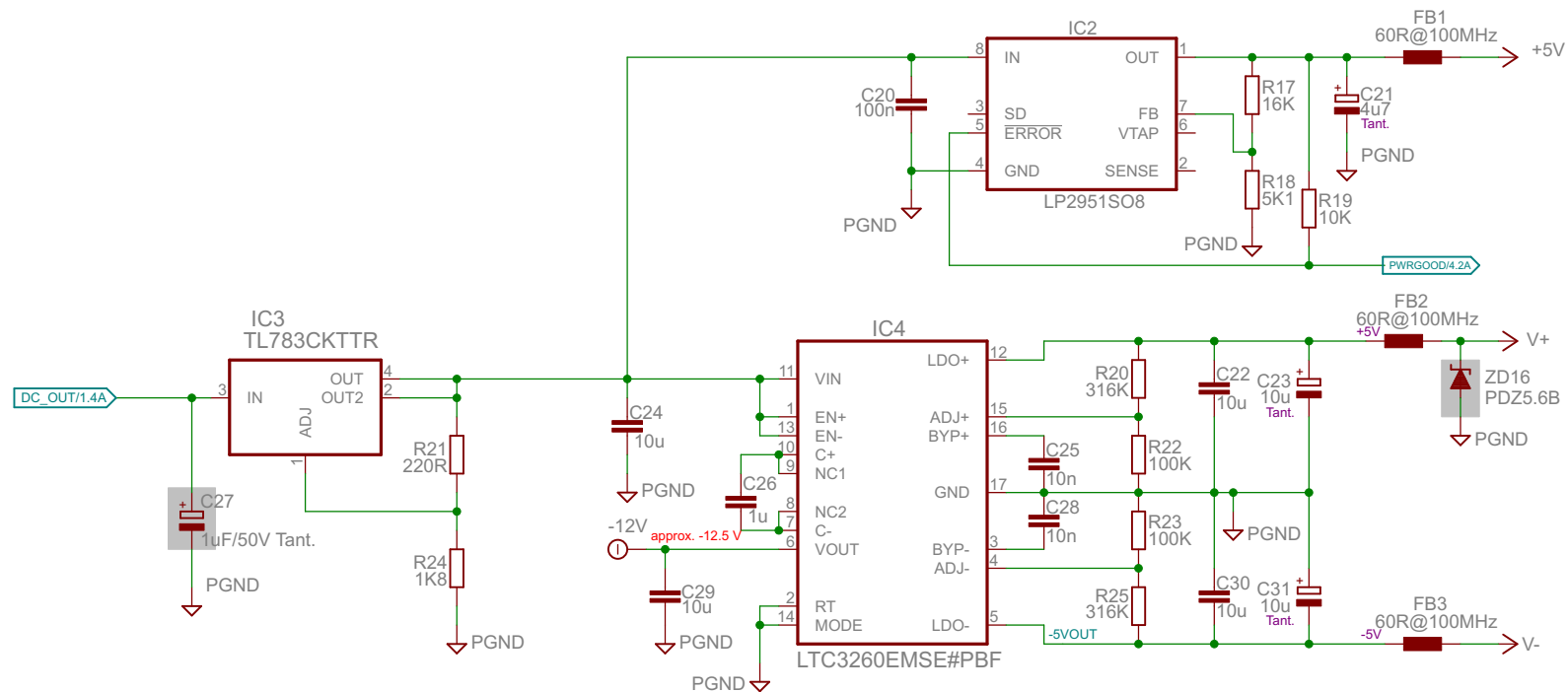
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Bias power supply (+/-5V, +5V, -12V)  
Powergood signal

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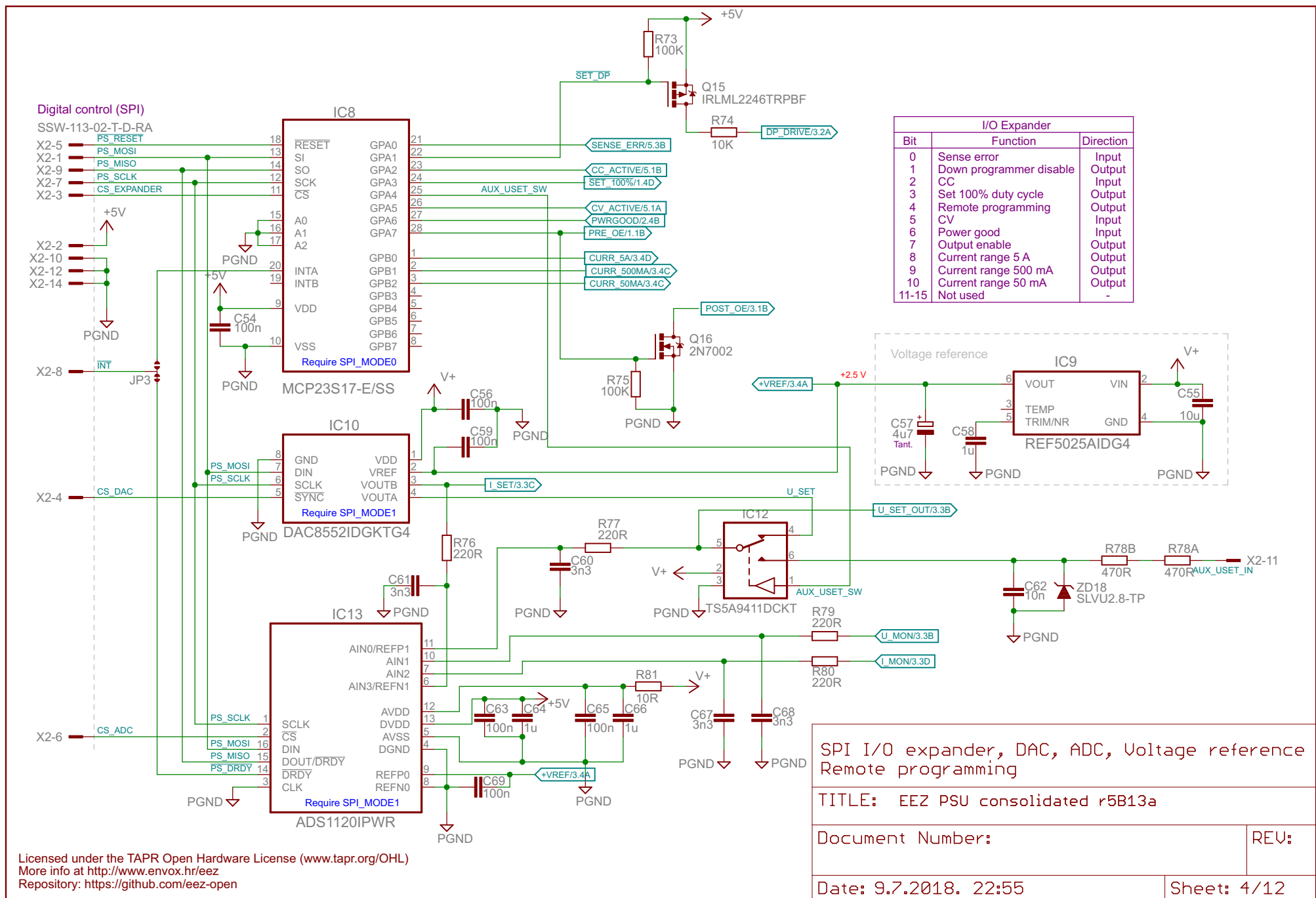
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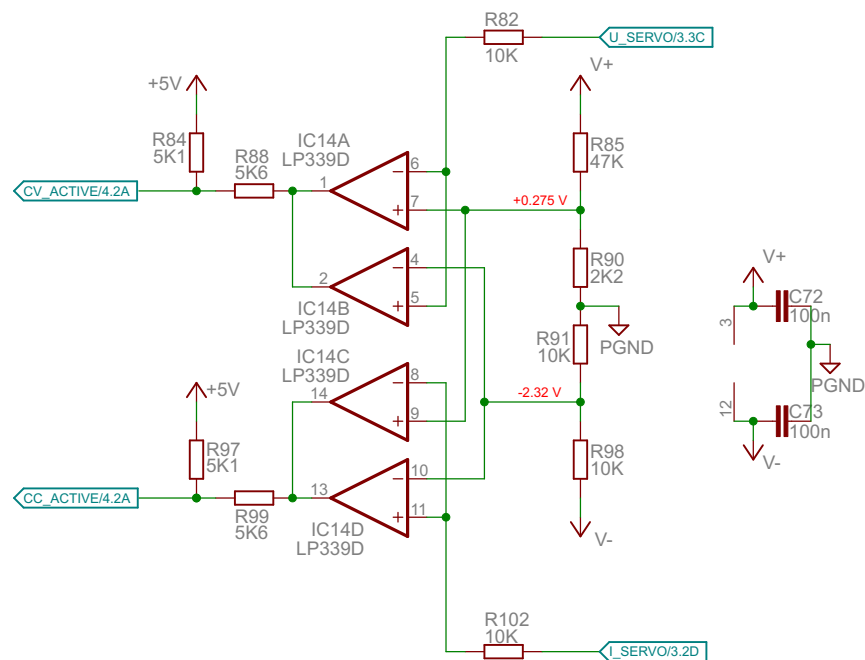
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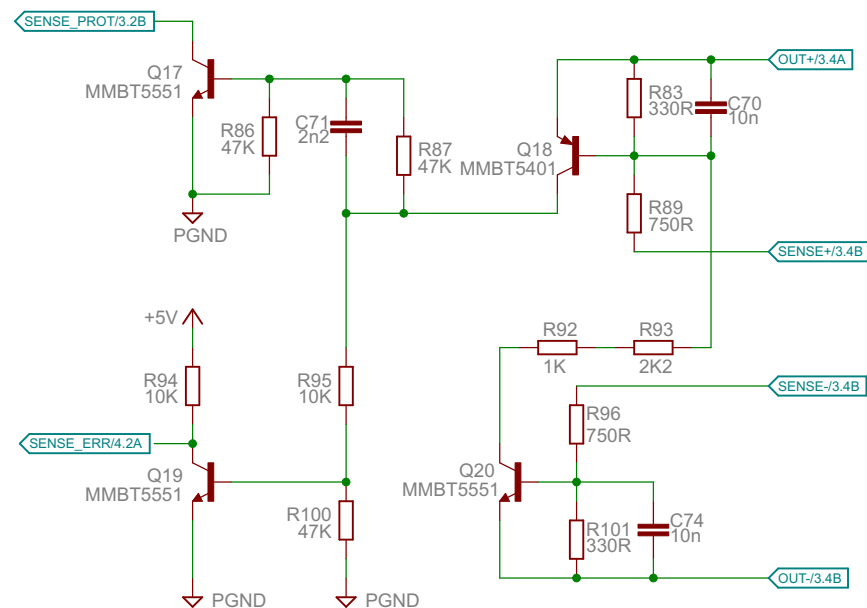




Constant Voltage (CV) and Constant Current (CC) mode indicator



Remote sense reverse polarity detection



CC/CV indicators, Sense error detection

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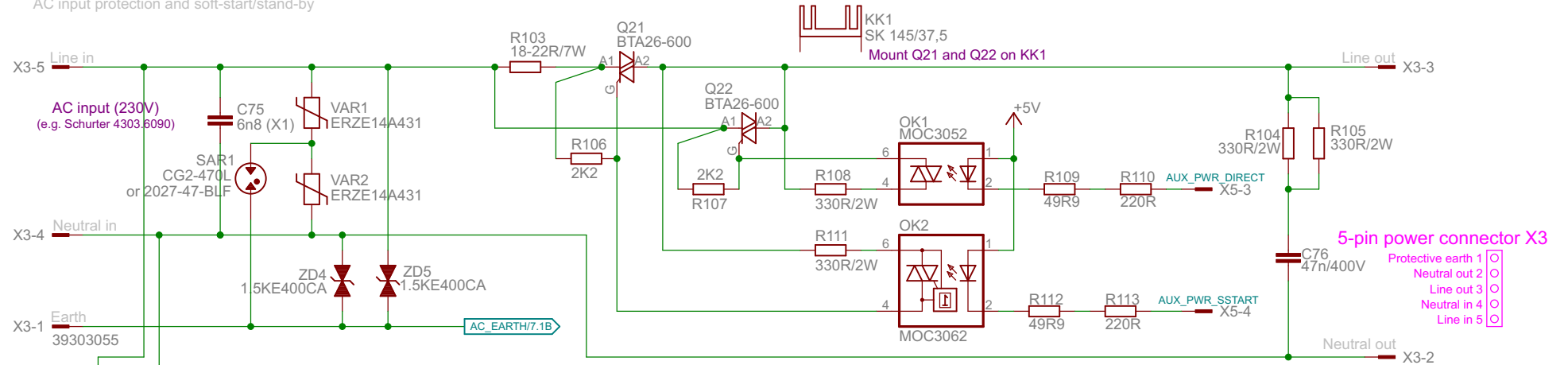
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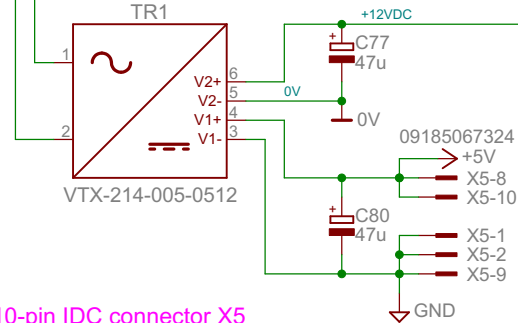
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# AC input protection and soft-start/stand-by



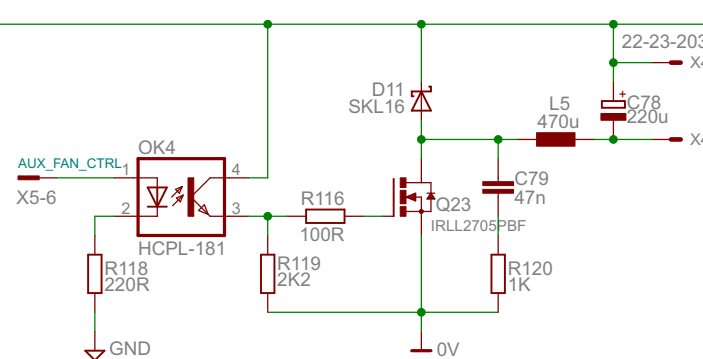
## +5 V, +12 V power supply (max. 5W)



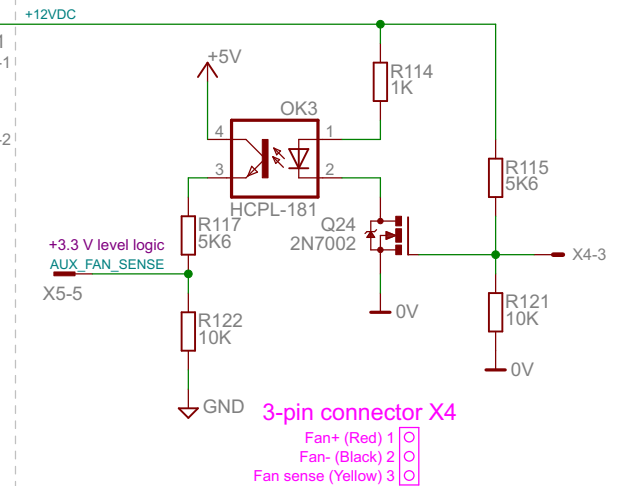
## 115VAC option:

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

## +12VDC fan control



## Fan sense (tacho out)



AC input protection, in-rush current limiter  
+5V/+12V 5W power supply, fan control

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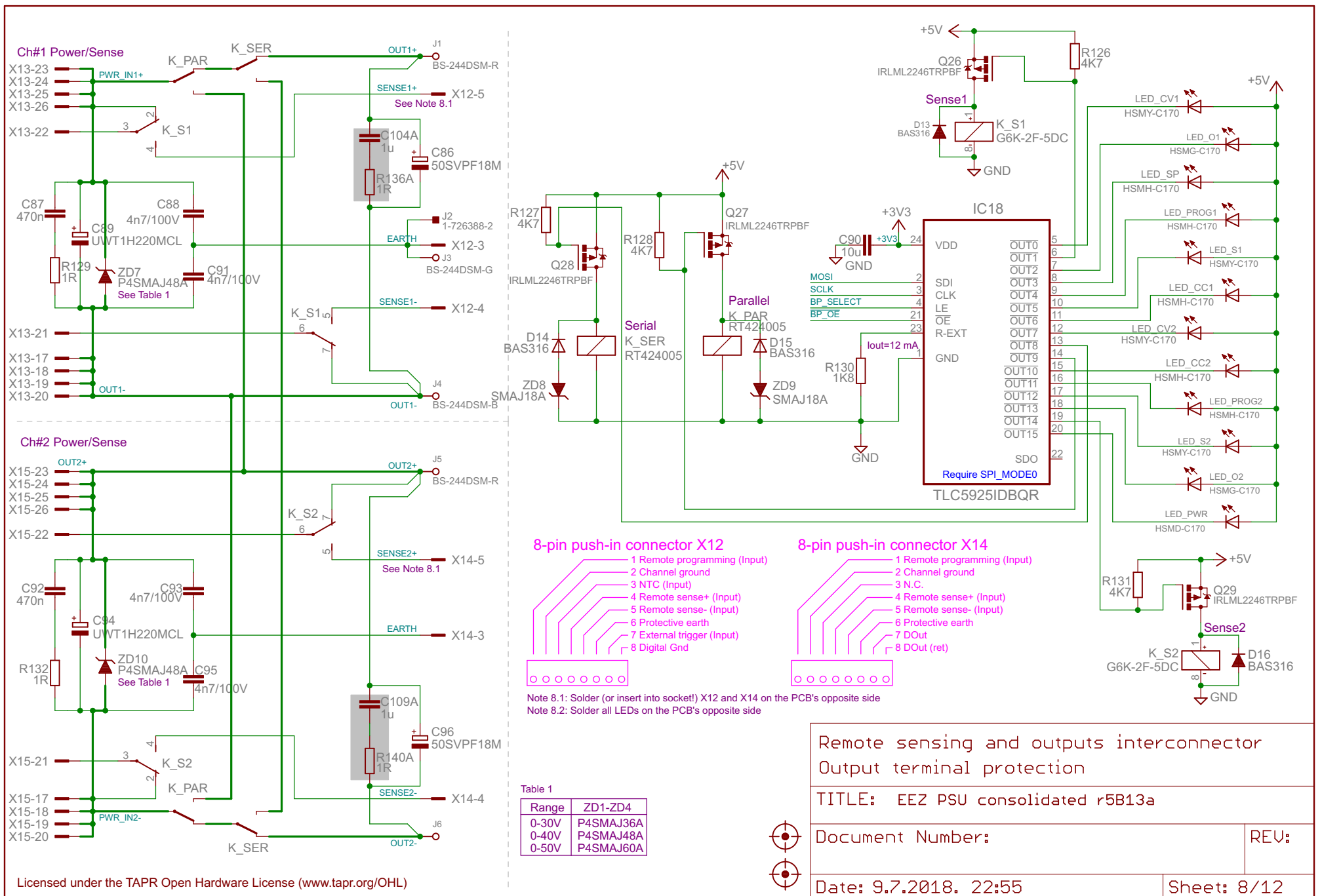
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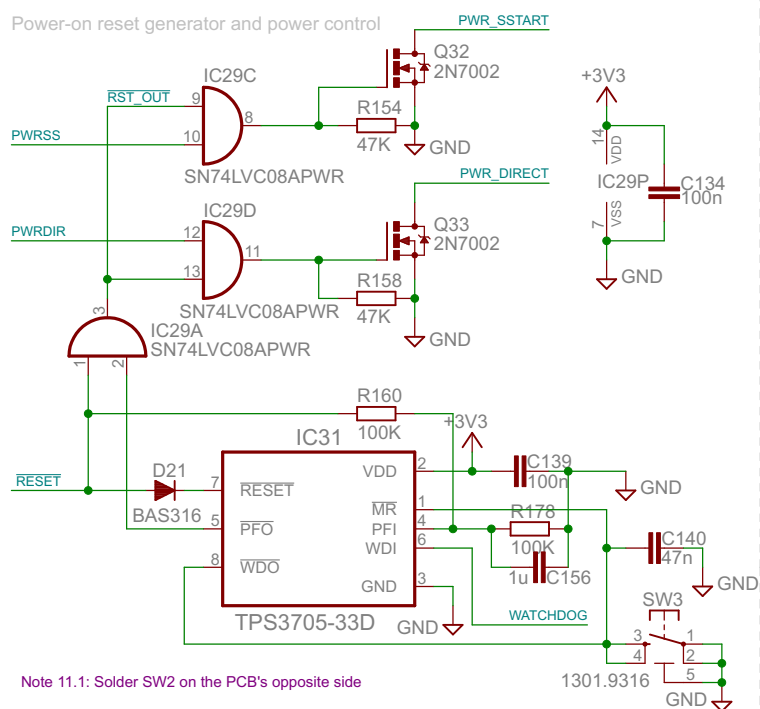




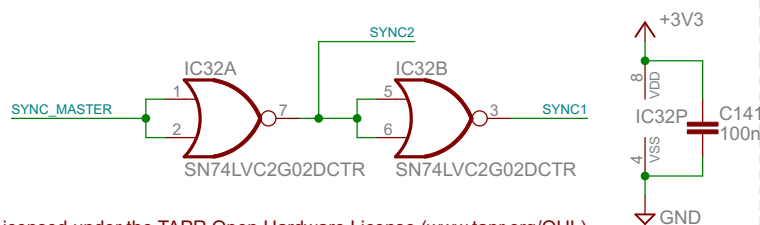
# Remote programming inputs



# Power-on reset generator and power control

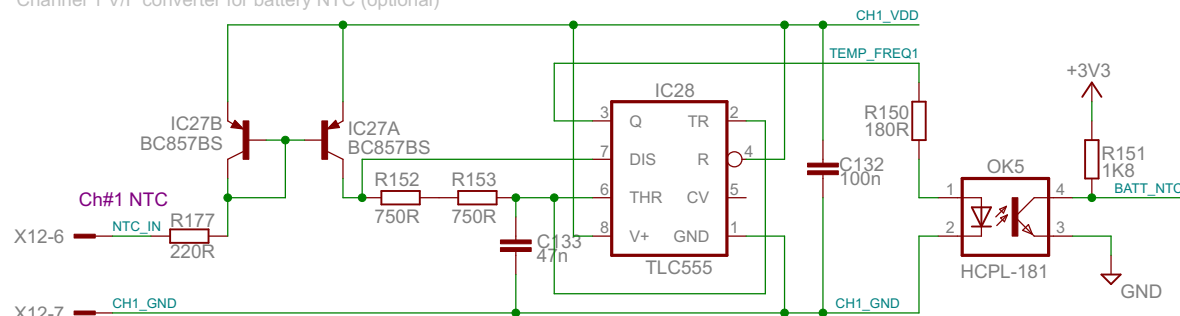


# Master sync signal phase shifting

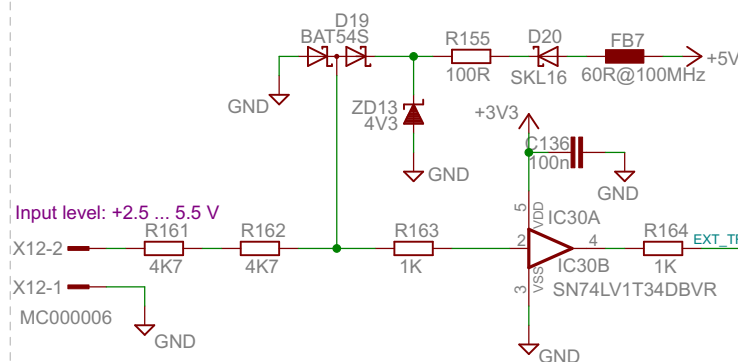


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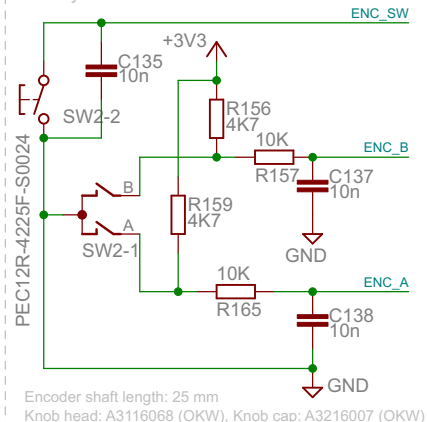
# Channel 1 V/F converter for battery NTC (optional)



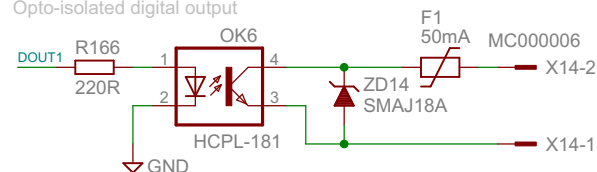
# External trigger protection and level shifter/buffer



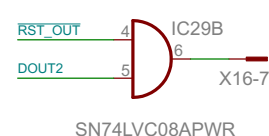
# Rotary encoder



# Opto-isolated digital output



# DOUT2 driver



Reset control, soft-start driver, encoder  
U/F converter for battery NTC, External trigger

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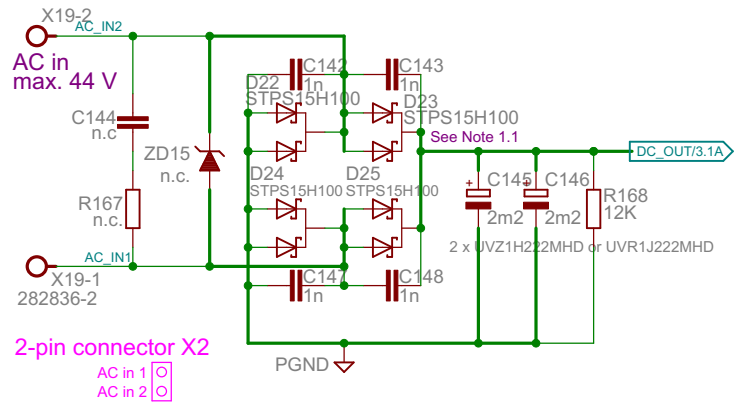
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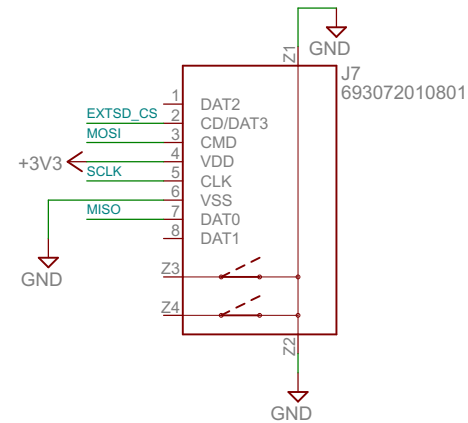
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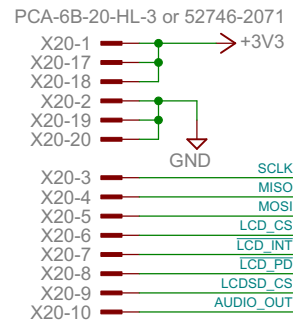
# AC input option



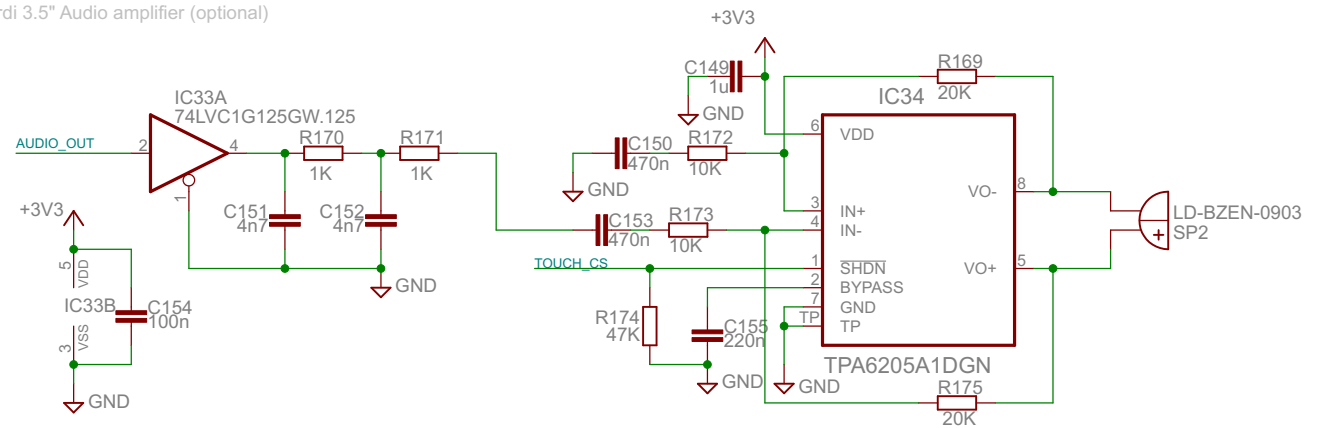
# Micro SD card (optional)



# Riverdi 3.5" LCD (optional)



# Riverdi 3.5" Audio amplifier (optional)



Optional sections: AC input, 20-pin 3.5" TFT display  
Audio amplifier for 3.5" TFT display, Micro SD card

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