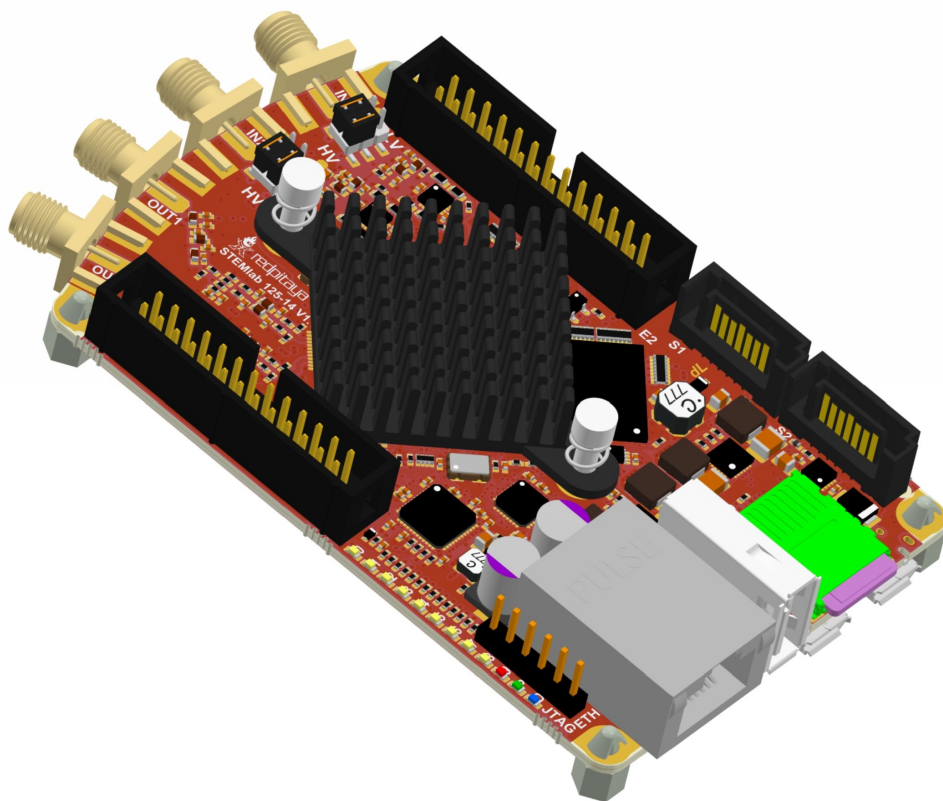




Red Pitaya d.o.o.
Velika pot 22
5250 Solkan
Slovenia

www.redpitaya.com

Electrical schematics for:

product: STEMLab_125-14

version: V1.1

variant: STEMLab 125-14 LN

release date: 13. 9. 2021



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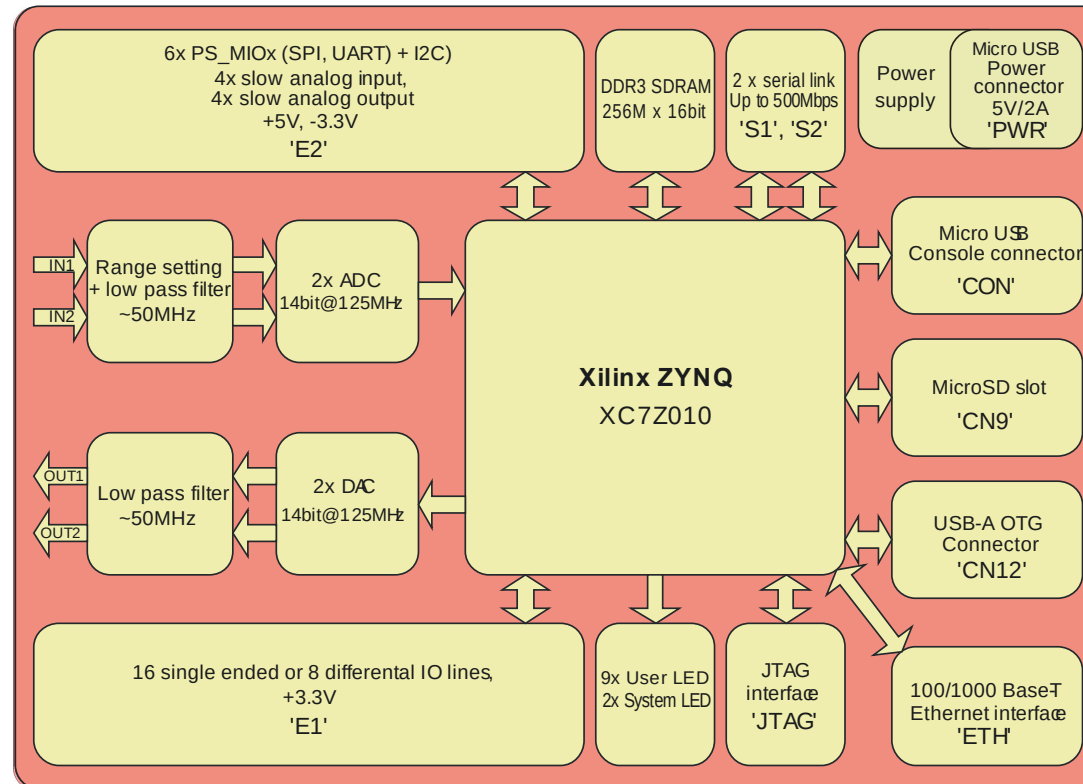
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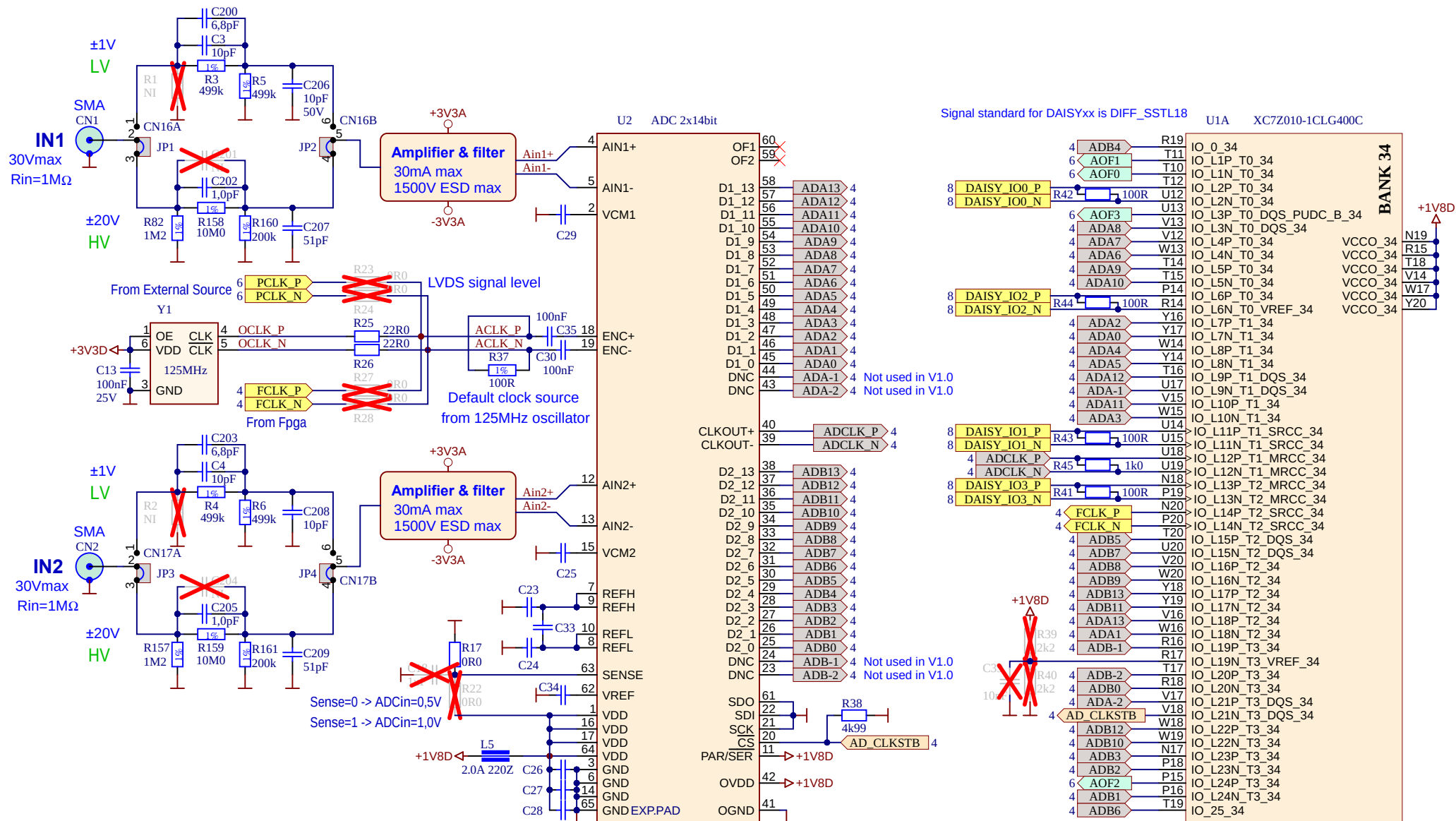
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Red Pitaya STEMLab 125-14 V1.1 block schematics



2 Analog front-end and AD converter, Zynq bank 34

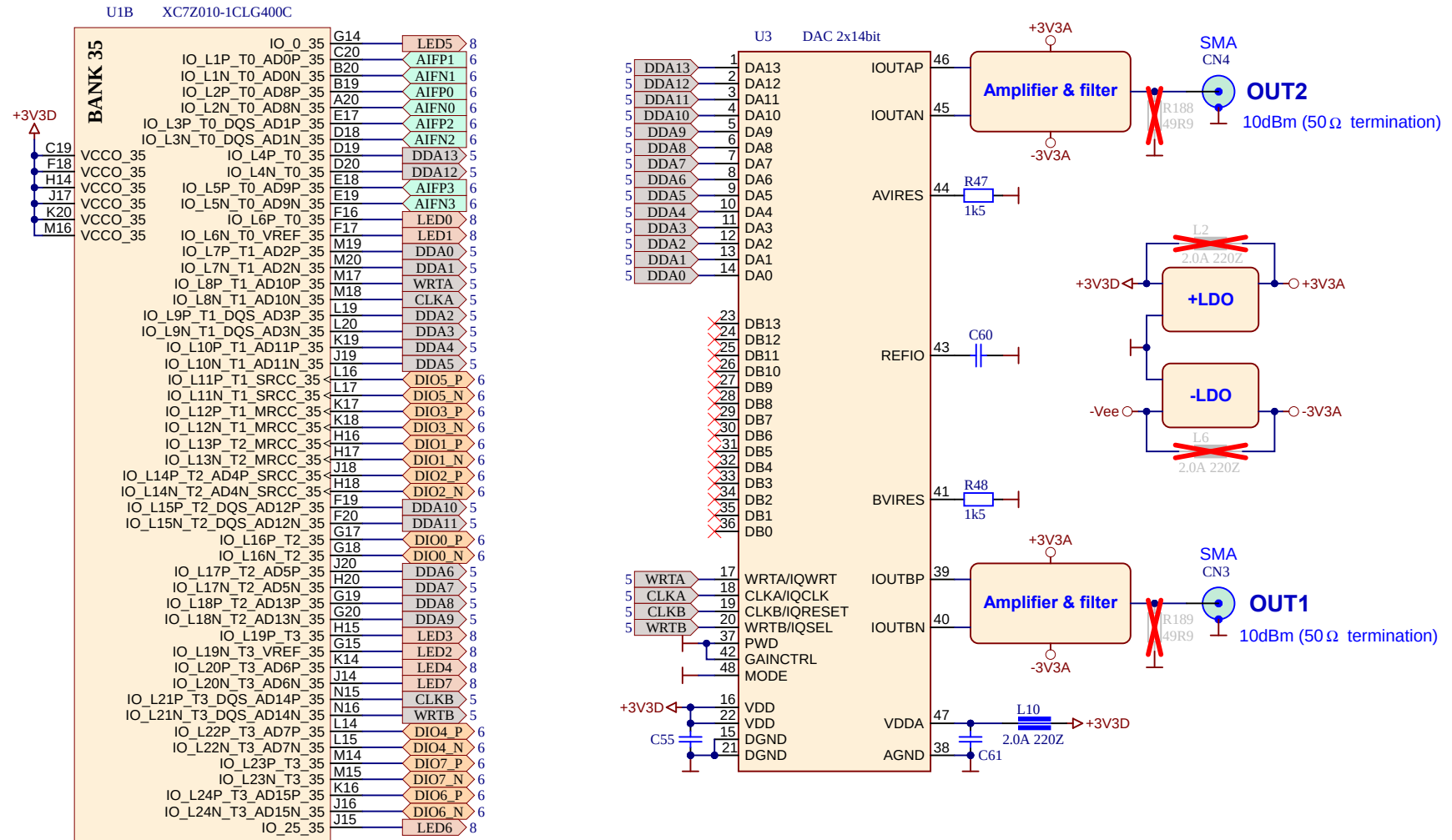


Note: number next to port symbol indicates the sheet where the signal is connected

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Released: 13. 9. 2021

3 DA converter and analog back-end, Zynq bank 35

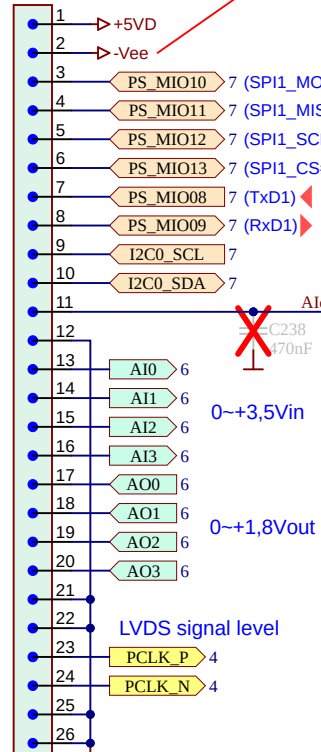


4 Digital and analog slow I/O, Zynq bank 13

PS_MIO08 is output only and at power-up must be low level (no external pull-ups)!

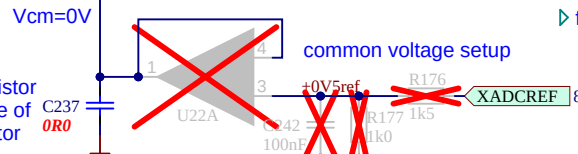
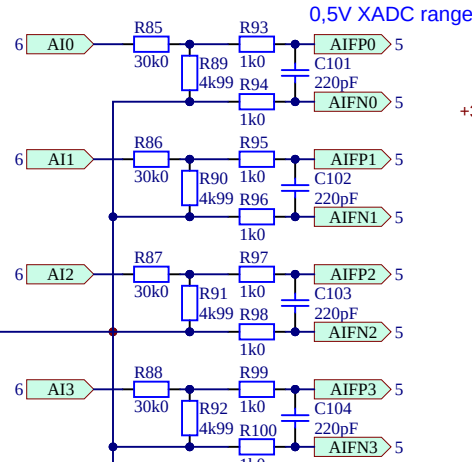
Negative supply voltage Vee can be -3,3V or -4,2V depends on version!

E2
CN5

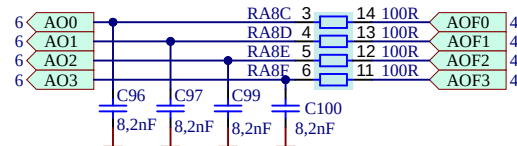


IDC 2.54mm 26 pin low profile

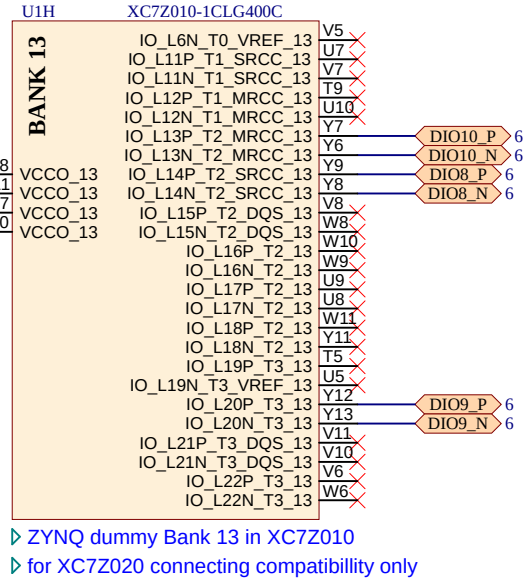
(alternative ZYNQ function)
3,3V logic levels



OR resistor in place of capacitor
Remove if external common mode voltage is used!



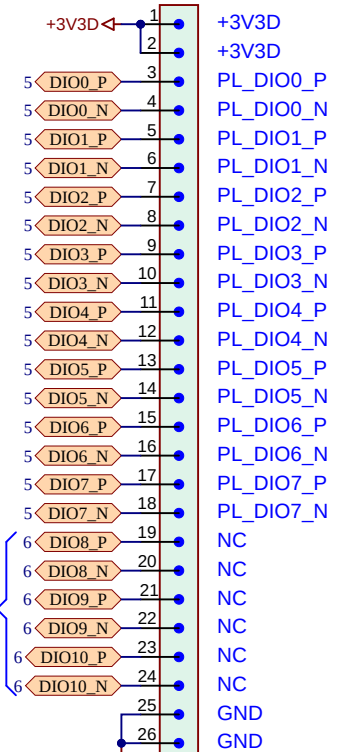
Power supply voltage monitor
0,5V XADC@6,11Vin



Not connected in XC7Z010

16 single ended or
8 differential digital I/O
with 3,3V logic levels

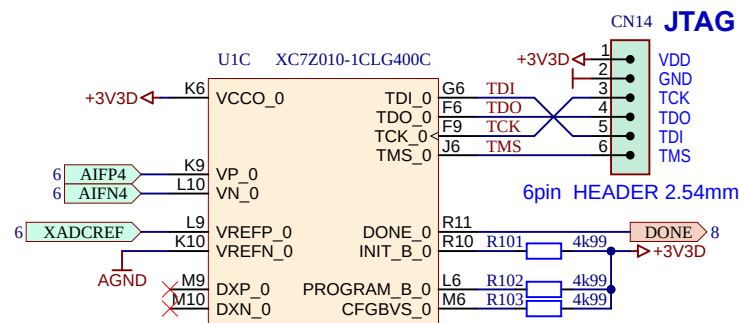
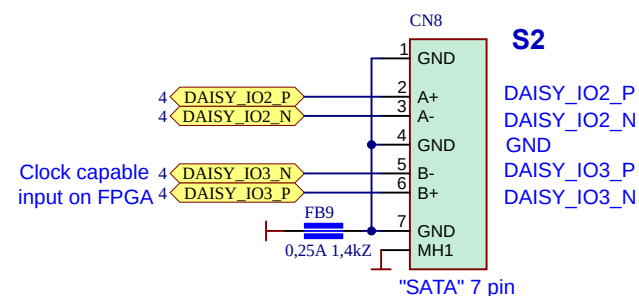
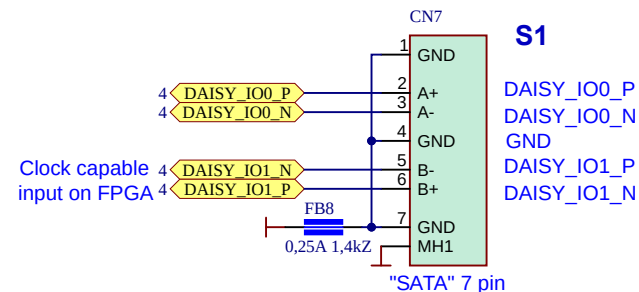
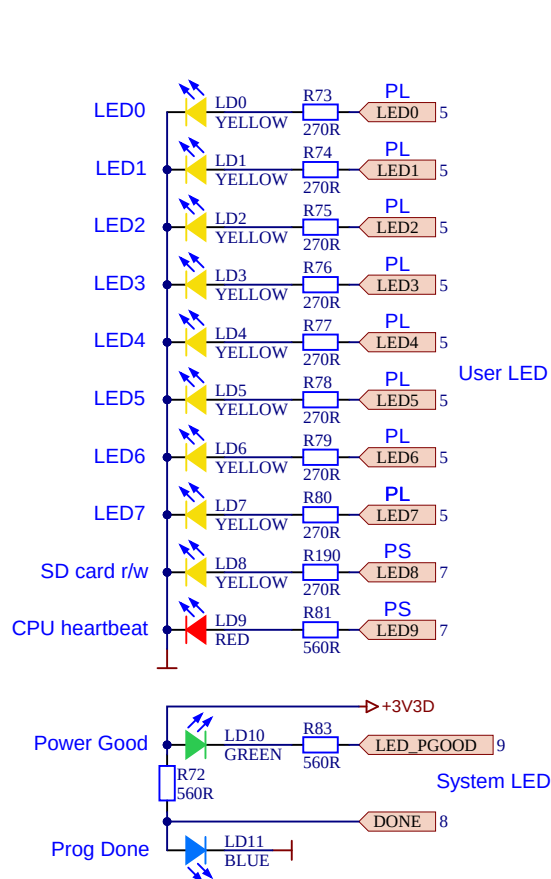
E1
CN6



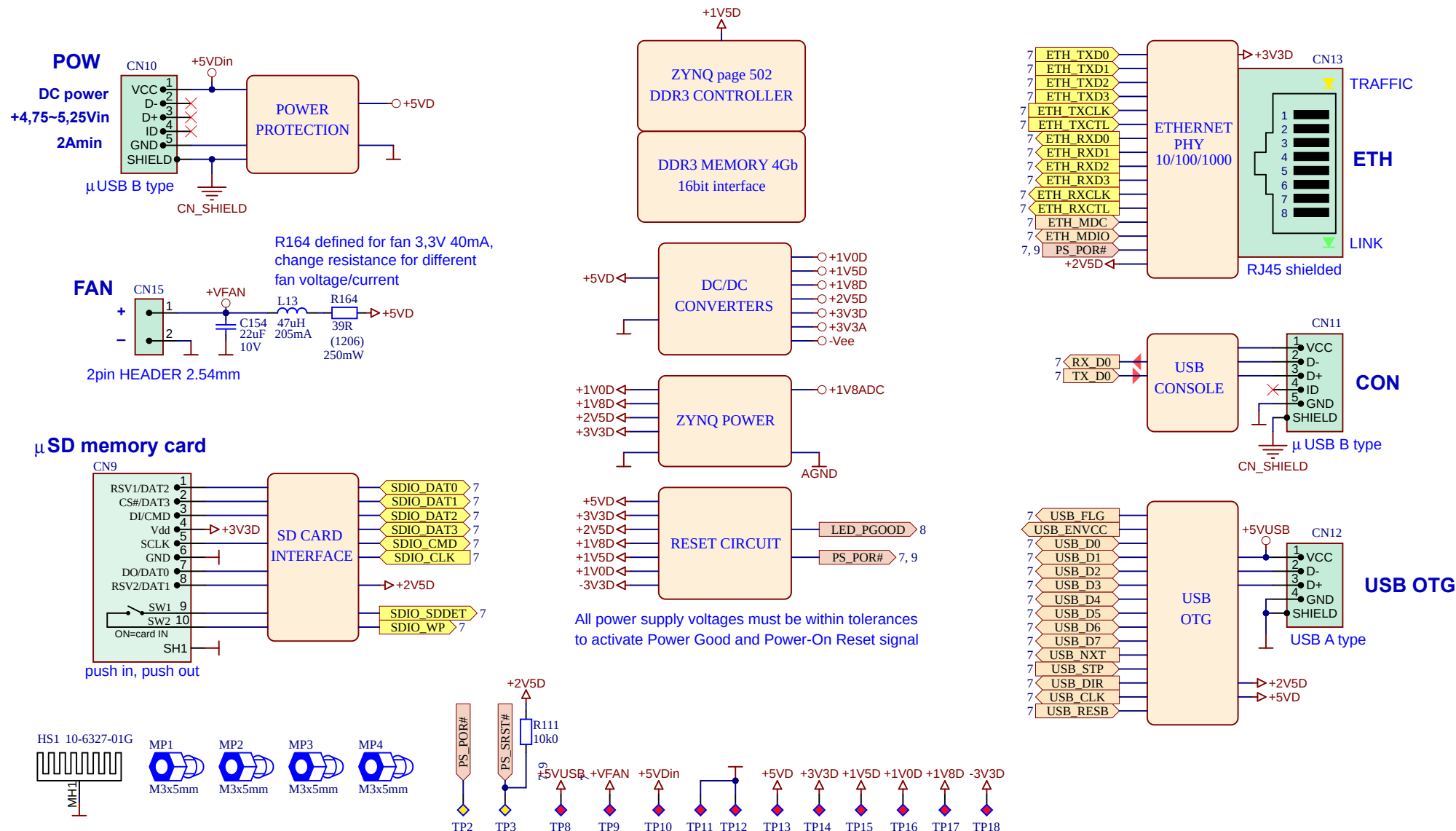
IDC 2.54mm 26 pin low profile



6 LED, Serial interface, JTAG



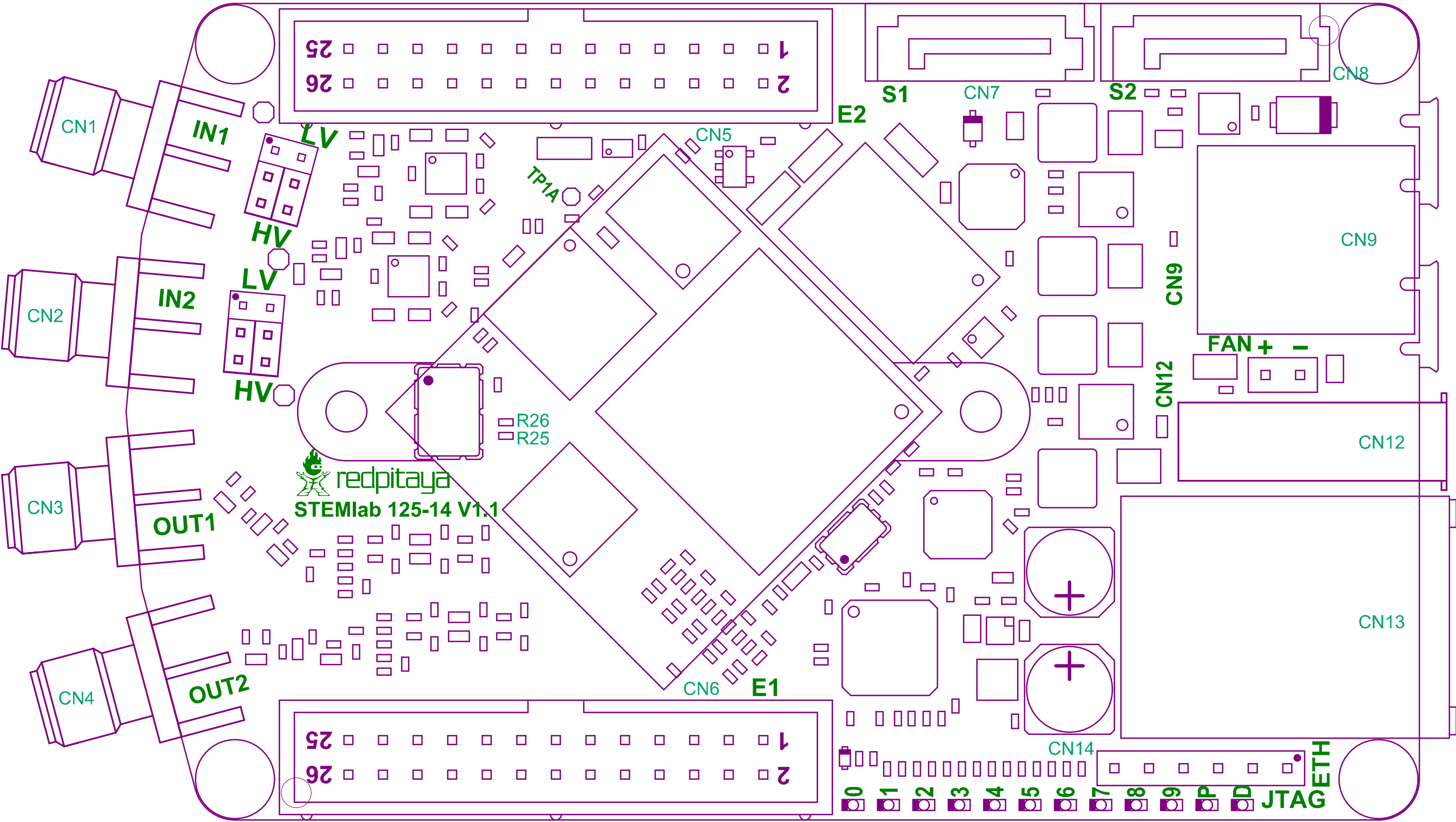
7 Ethernet, memory card, Console, USB OTG, DDR3, Power



Note: number next to port symbol indicates the sheet where the signal is connected

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Top assembly: STEMLab_125-14_V1.1 variant: STEMLab 125-14 LN



SD card r/w LED
CPU HEARTBEAT LED
POWER LED
PROG DONE LED

Bottom assembly: STEMLab_125-14_V1.1 variant: STEMLab 125-14 LN

