

A

B

C

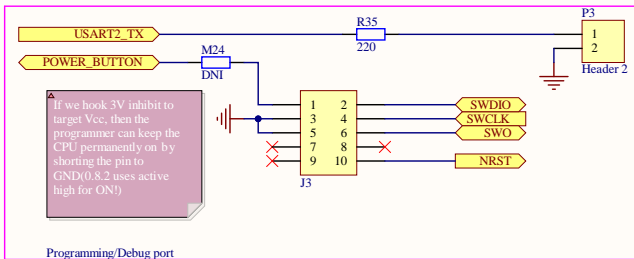
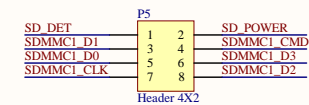
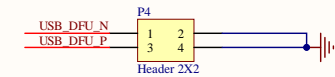
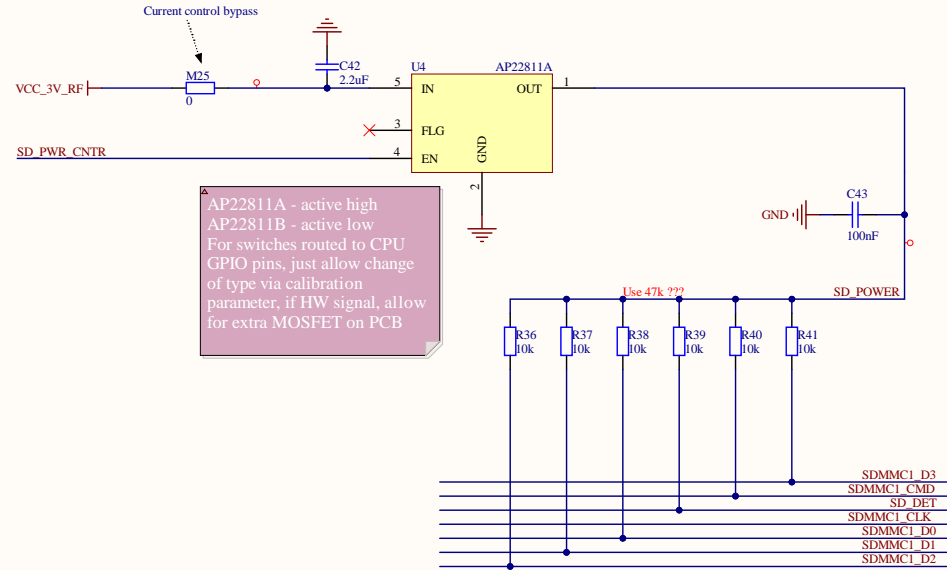
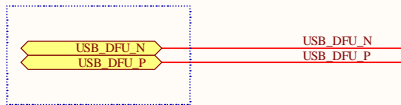
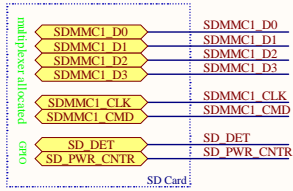
D

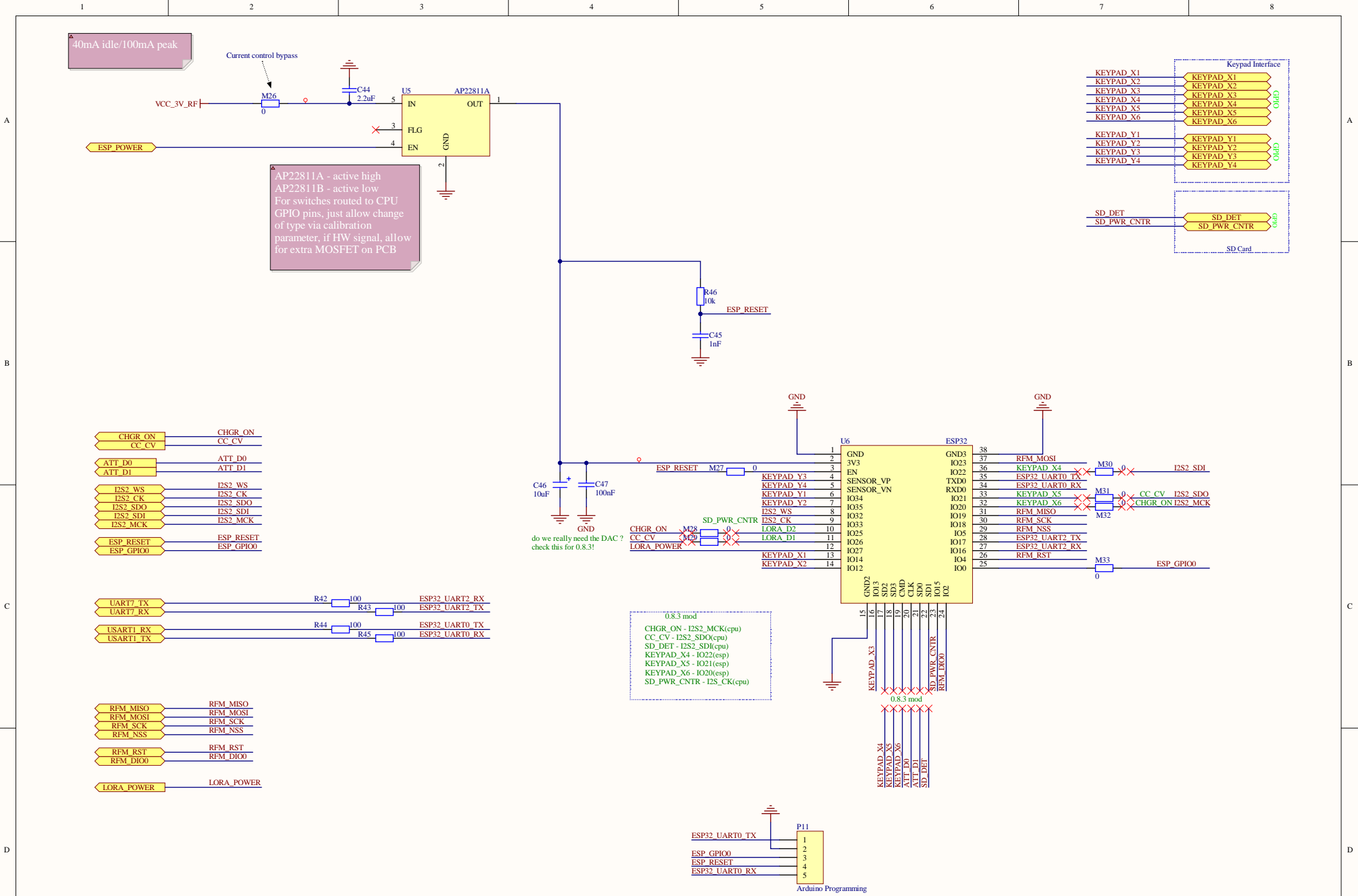
A

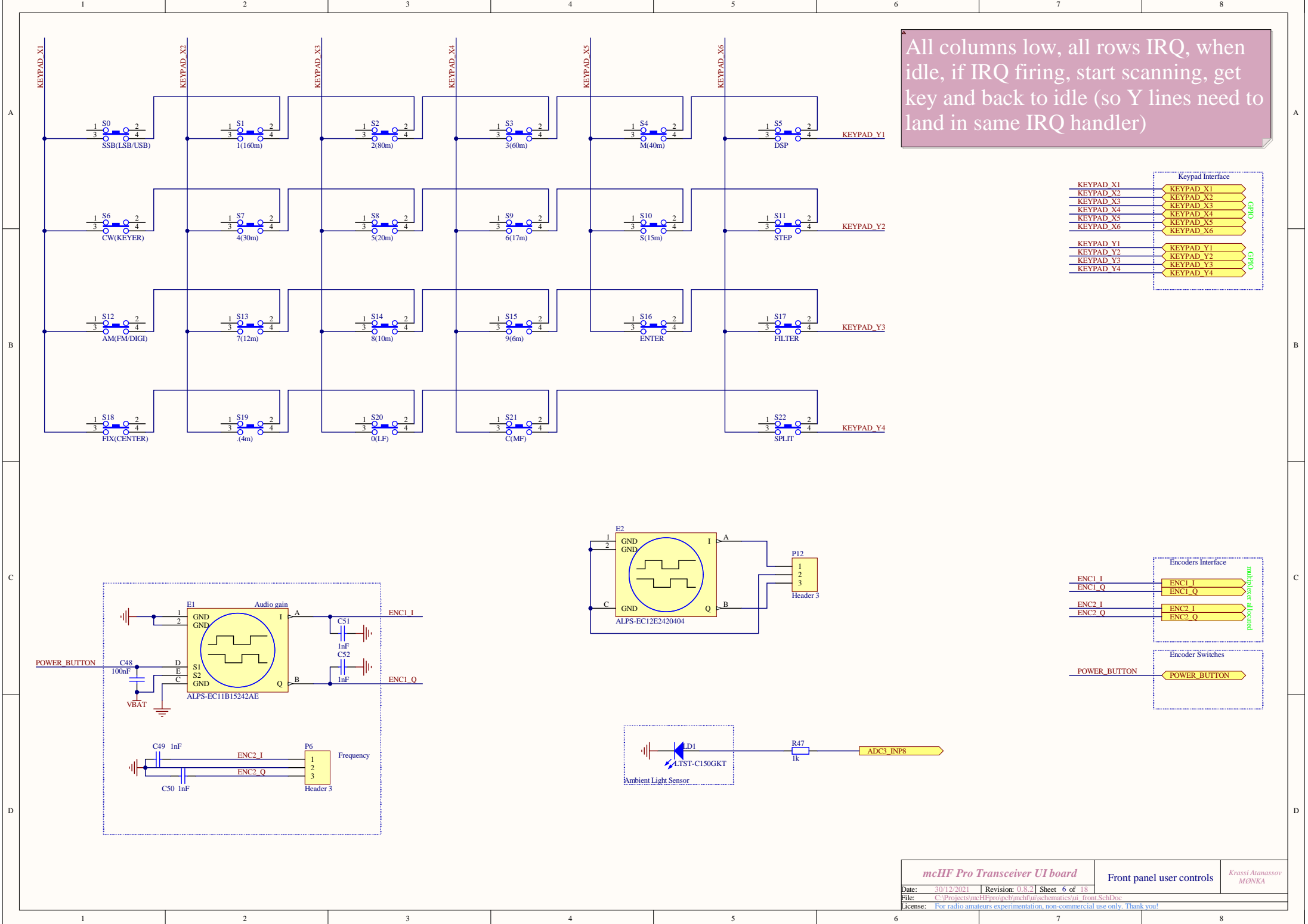
B

C

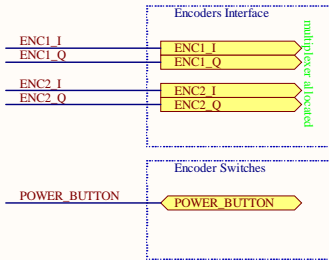
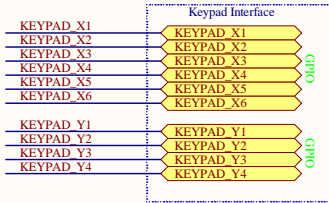
D







All columns low, all rows IRQ, when idle, if IRQ firing, start scanning, get key and back to idle (so Y lines need to land in same IRQ handler)



A

B

C

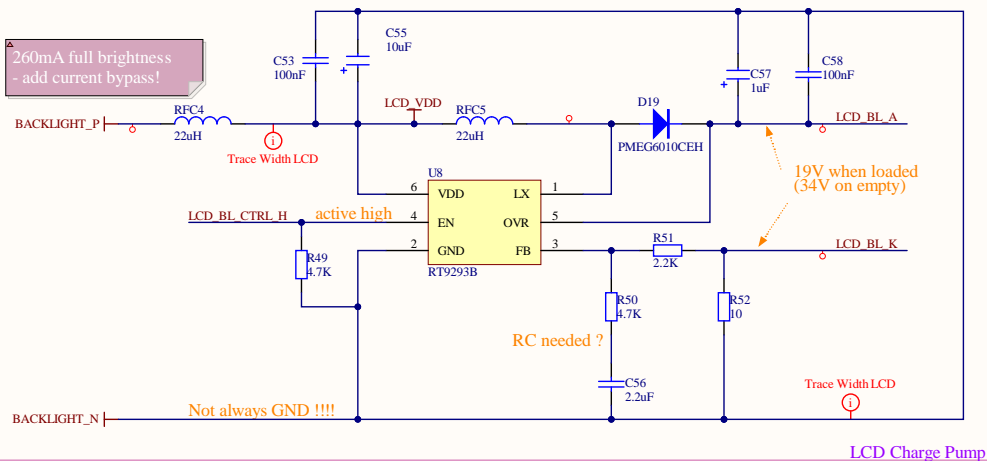
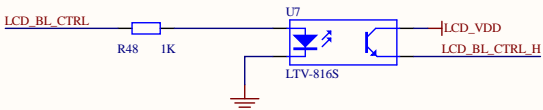
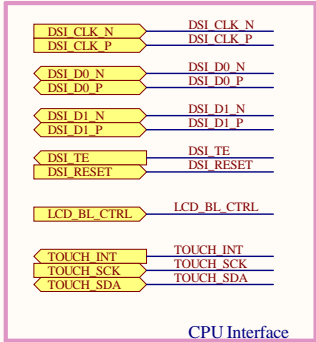
D

A

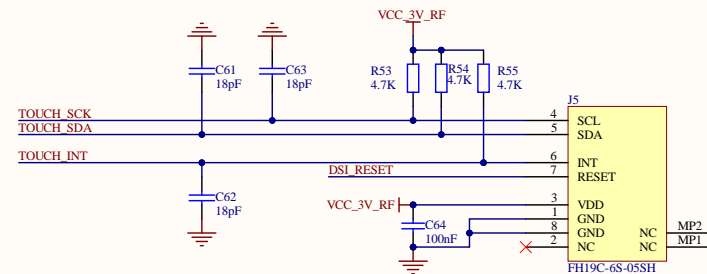
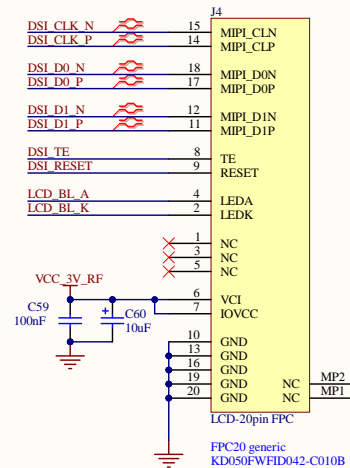
B

C

D



ToDo: Use layout from pdf!



A

B

C

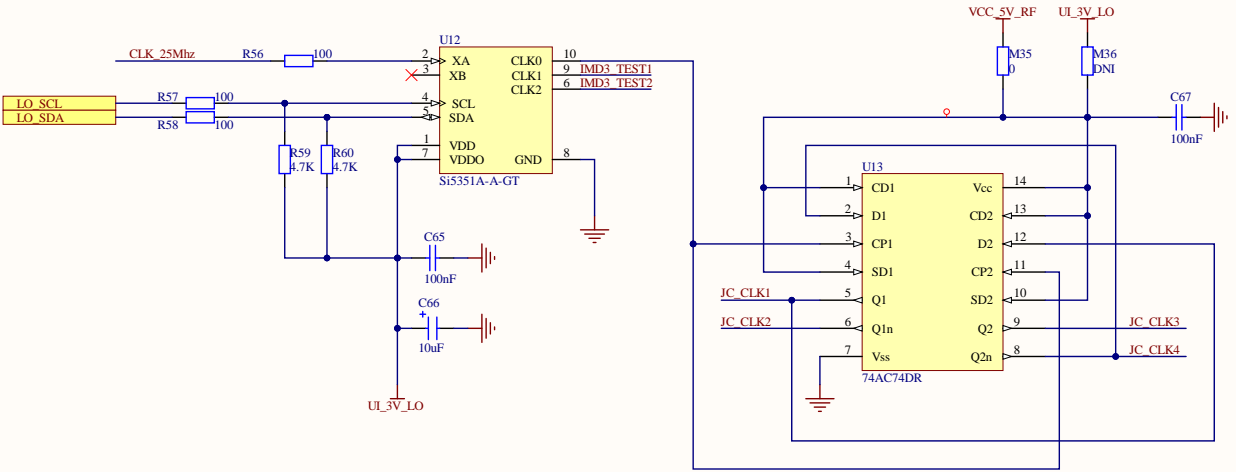
D

A

B

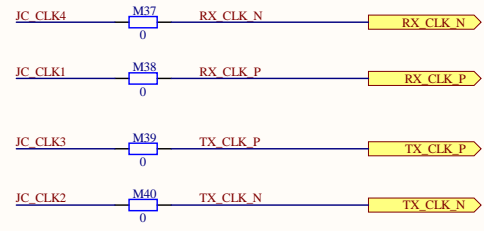
C

D



Q1	Q1N	Q2	Q2N
1	0	0	1
1	0	1	0
0	1	1	0
0	1	0	1

Johnson counter states

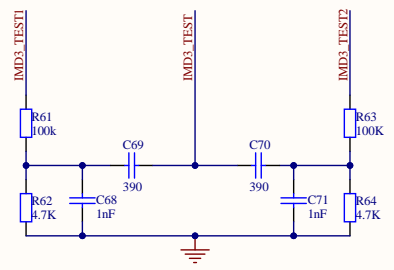


S1	S0
1	1
0	0
1	0
0	1
0	0
1	1
0	1

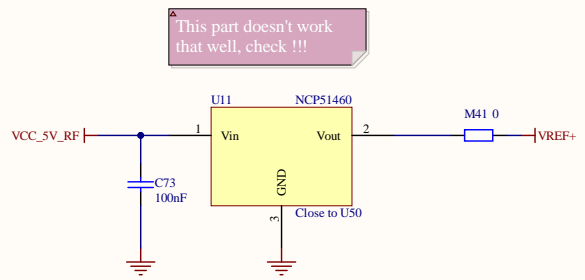
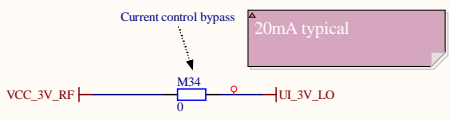
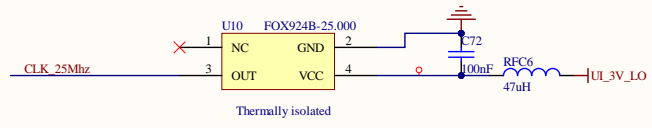
RX clock

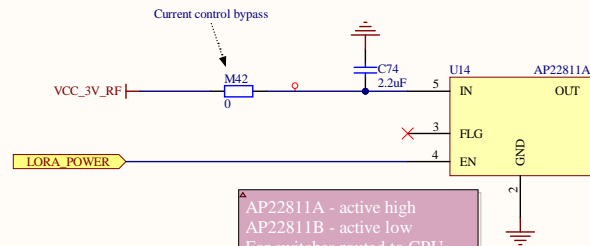
S1	S0
1	1
0	0
0	1
1	0
1	1
0	0
1	0

TX clock



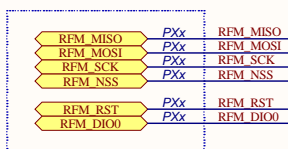
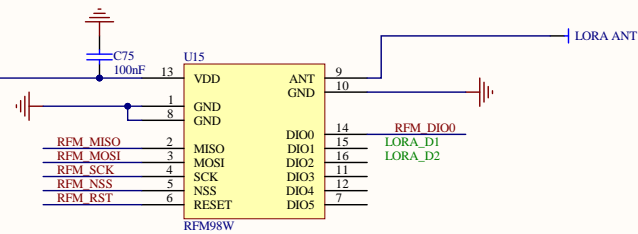
1. Do we need proper balanced mixer ?
2. Calculate ratios and caps!

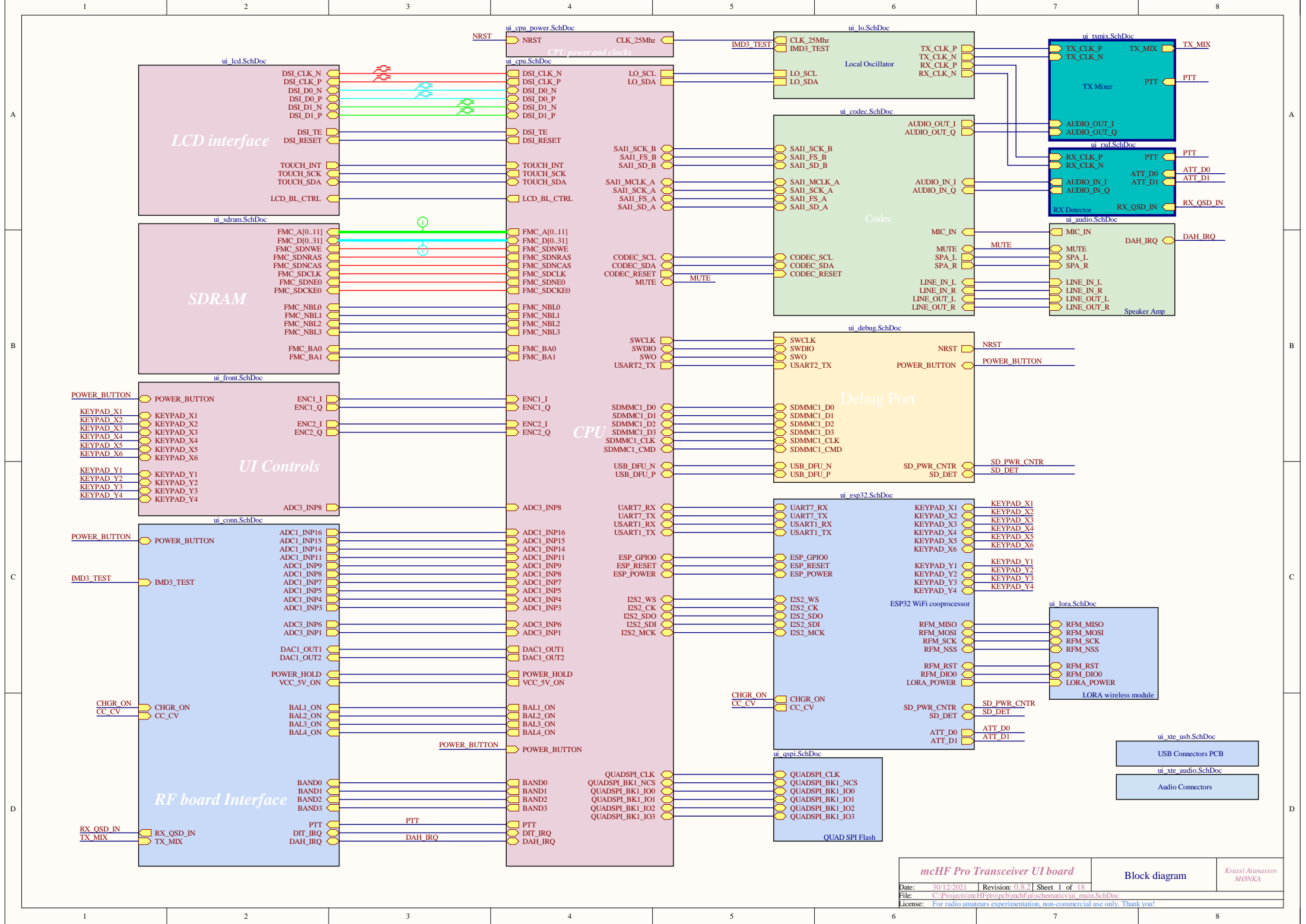




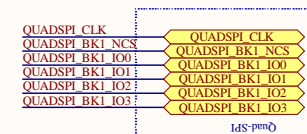
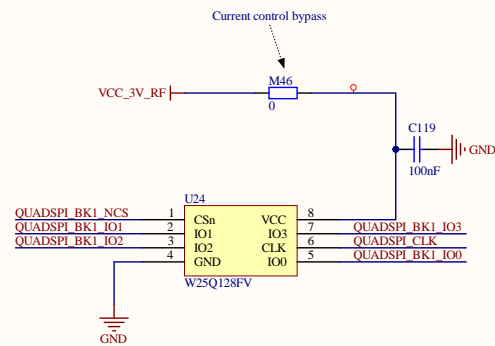
AP22811A - active high
 AP22811B - active low
 For switches routed to CPU
 GPIO pins, just allow change
 of type via calibration
 parameter, if HW signal, allow
 for extra MOSFET on PCB

need tantalum ? Check pdf!



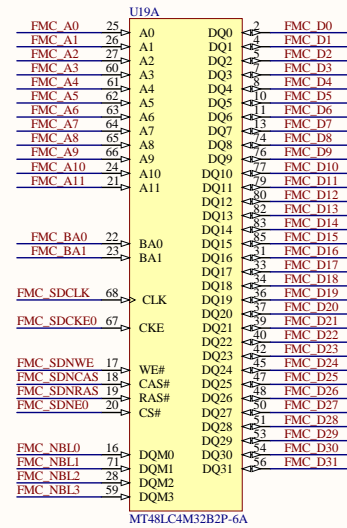
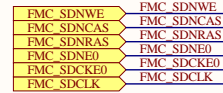
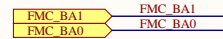
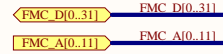


Do we need power control to reduce current draw ?



Note: SDRAM runs on 100Mhz max clock, limited by FMC controller

Impedance match address and data bus ?



A

B

C

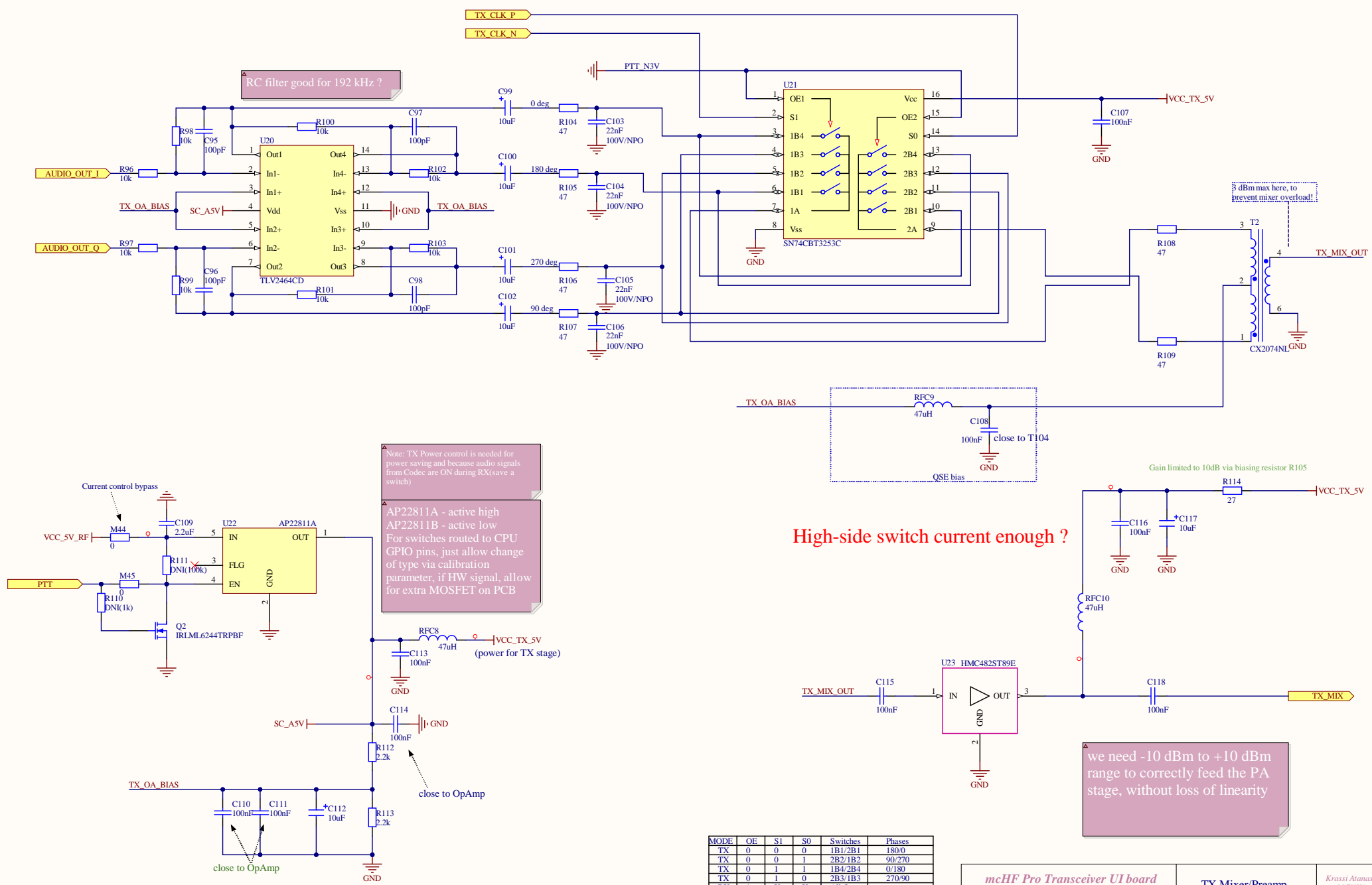
D

A

B

C

D



A

B

C

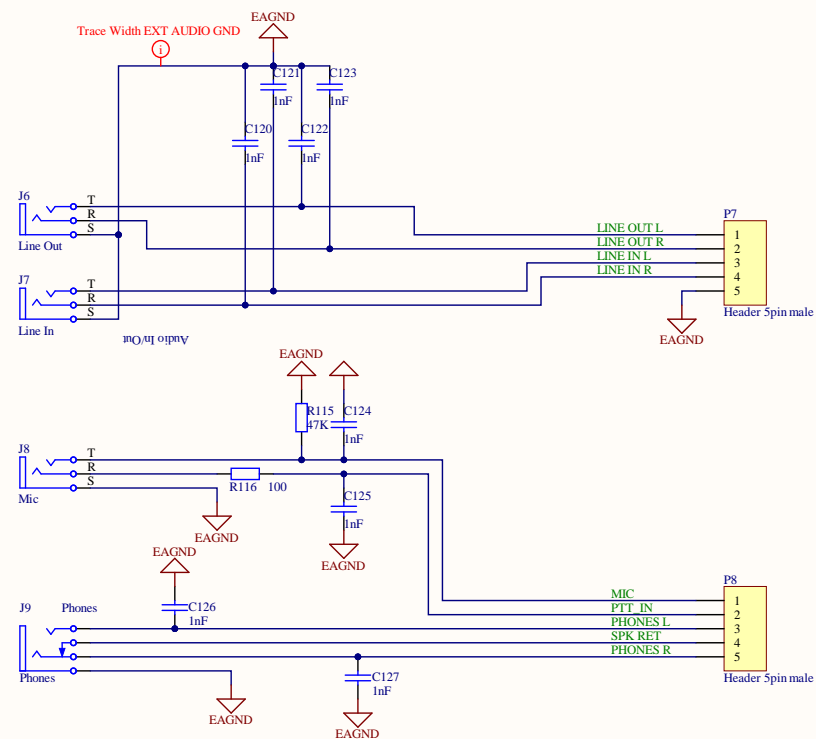
D

A

B

C

D

**mcHF Pro Transceiver UI board****Audio Connectors PCB**Krassi Atanasov
MONKA

Date: 30/12/2021 | Revision: 0.8.2 | Sheet 17 of 18

File: C:\Projects\mcHF\proj\pcb\ui\ui_schematics\ui_xte_audio.SchDoc

License: For radio amateurs experimentation, non-commercial use only. Thank you!

1

2

3

4

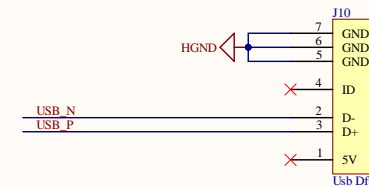
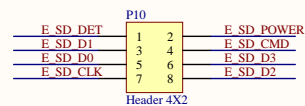
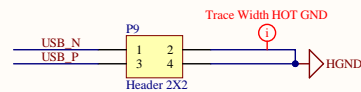
5

6

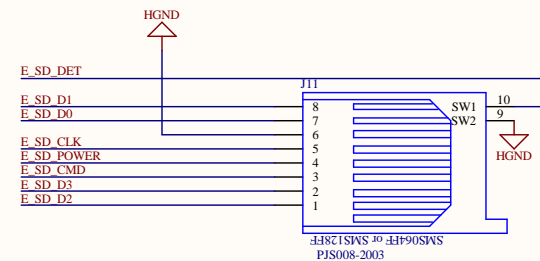
7

8

Need 5V line from USB ?



Impedance match SD lines ?



Polygon not connected to GND!