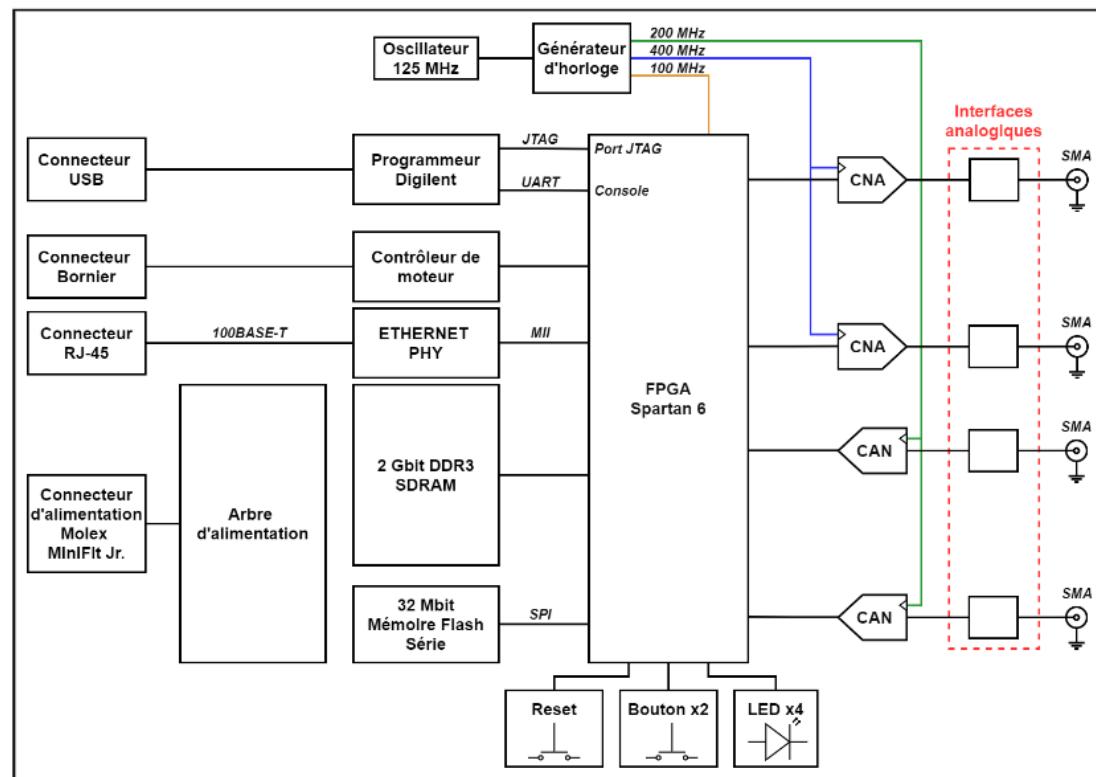


PLEIADES

LACP3102 - Pascal-Emmanuel Lachance
BILF0901 - Frédéric Bilodeau



NOTES FOR REVIEWERS:

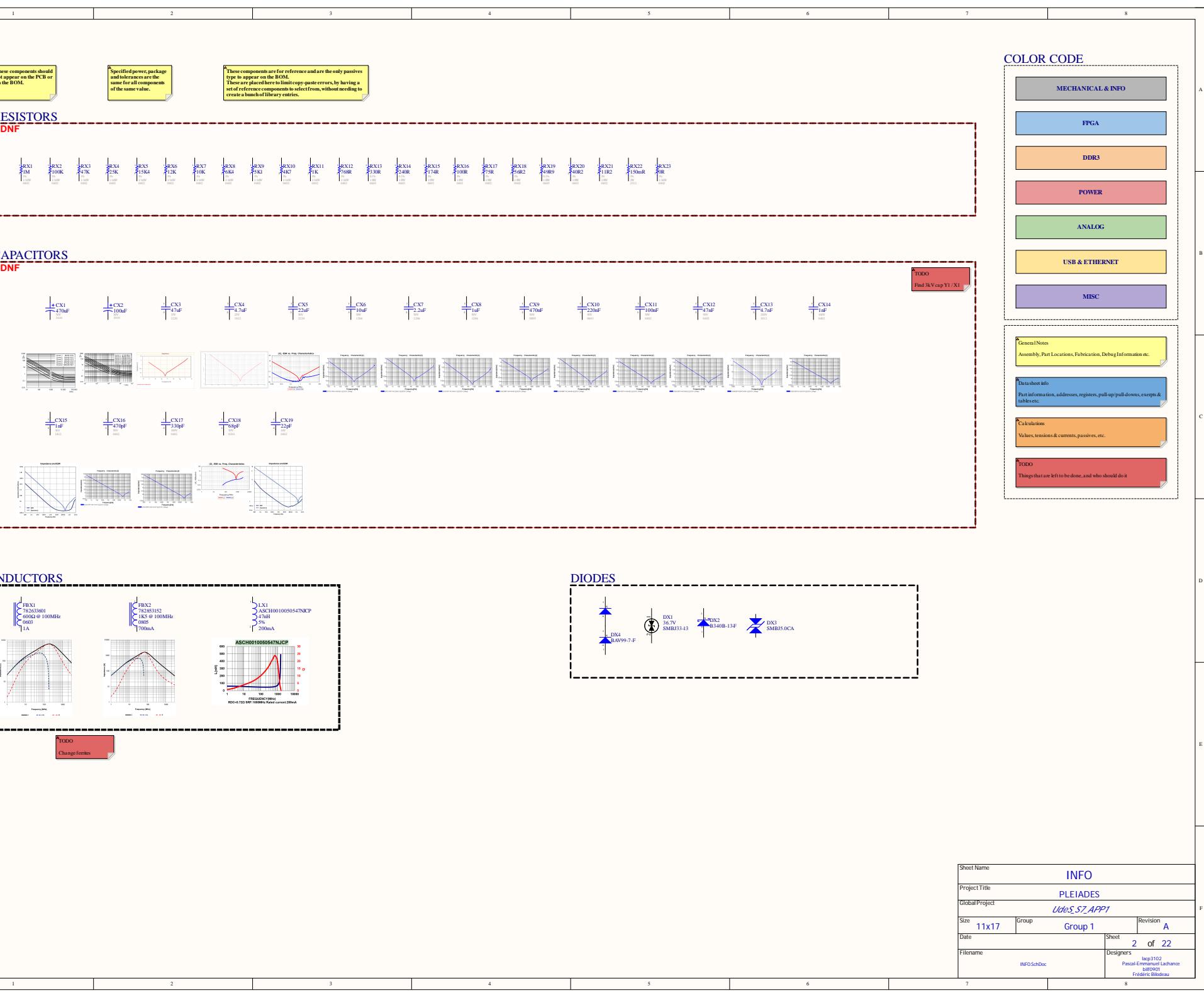
Some functionalities not originally asked by the problem have been added for fun and to challenge ourselves.

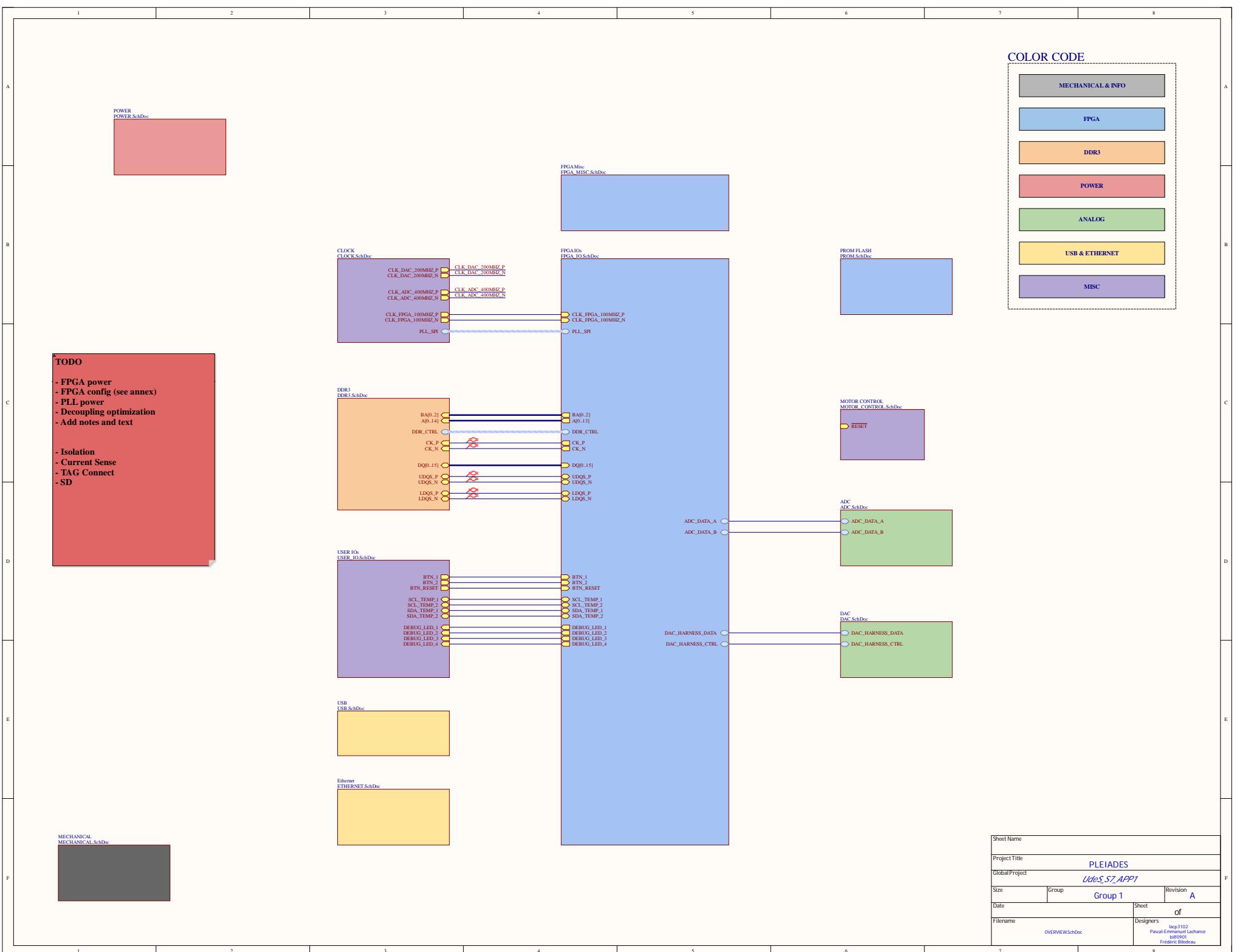
The following major changes have been done:

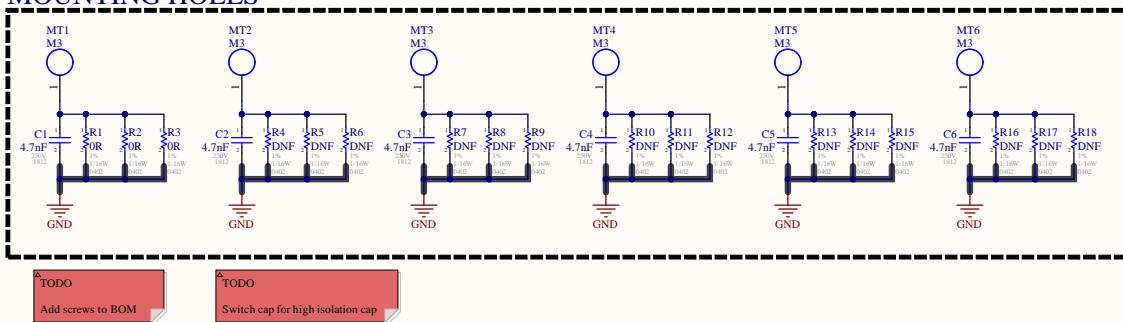
- Full Galvanic Isolation on 24V input and motor output
- Voltage and Current sensing on all major power rails
- A bunch of testpoints and debug features

Note that a lot of resistors for patches have been added to strapping pins for configuration of all chips.

Sheet Name	TITLE PAGE		
Project Title	PLEIADES		
Global Project	<i>UdeS_S7_APP1</i>		
Size	11x17	Group	Revision A
Date		Sheet 1 of 22	
Filename	TITLE.SchDoc		Designers <i>Iacp3102 Pascal-Emmanuel Lachance bilf0901 Frédéric Bilodeau</i>

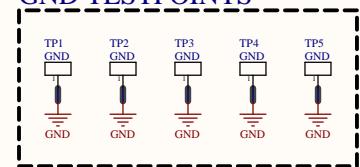
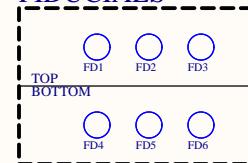




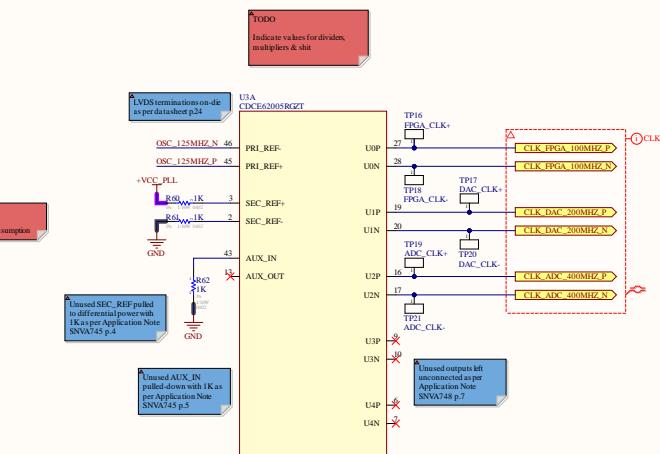
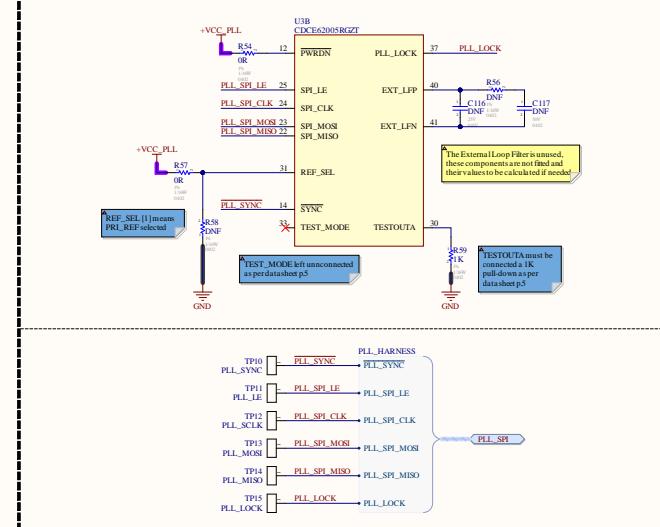
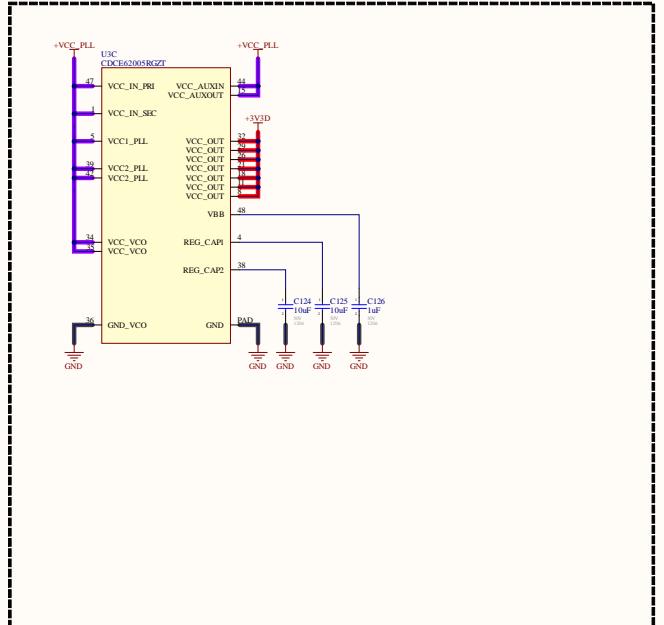
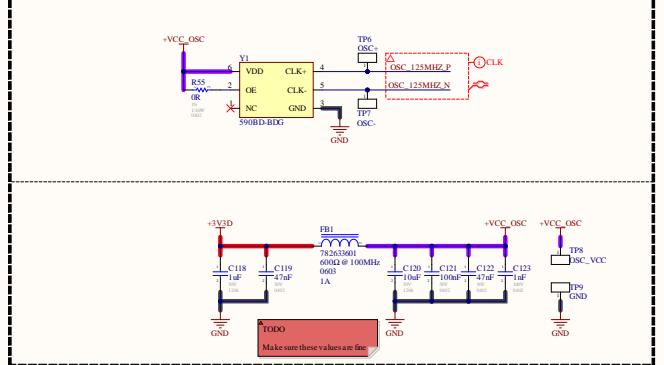
MOUNTING HOLES

^A TODO
Add screws to BOM

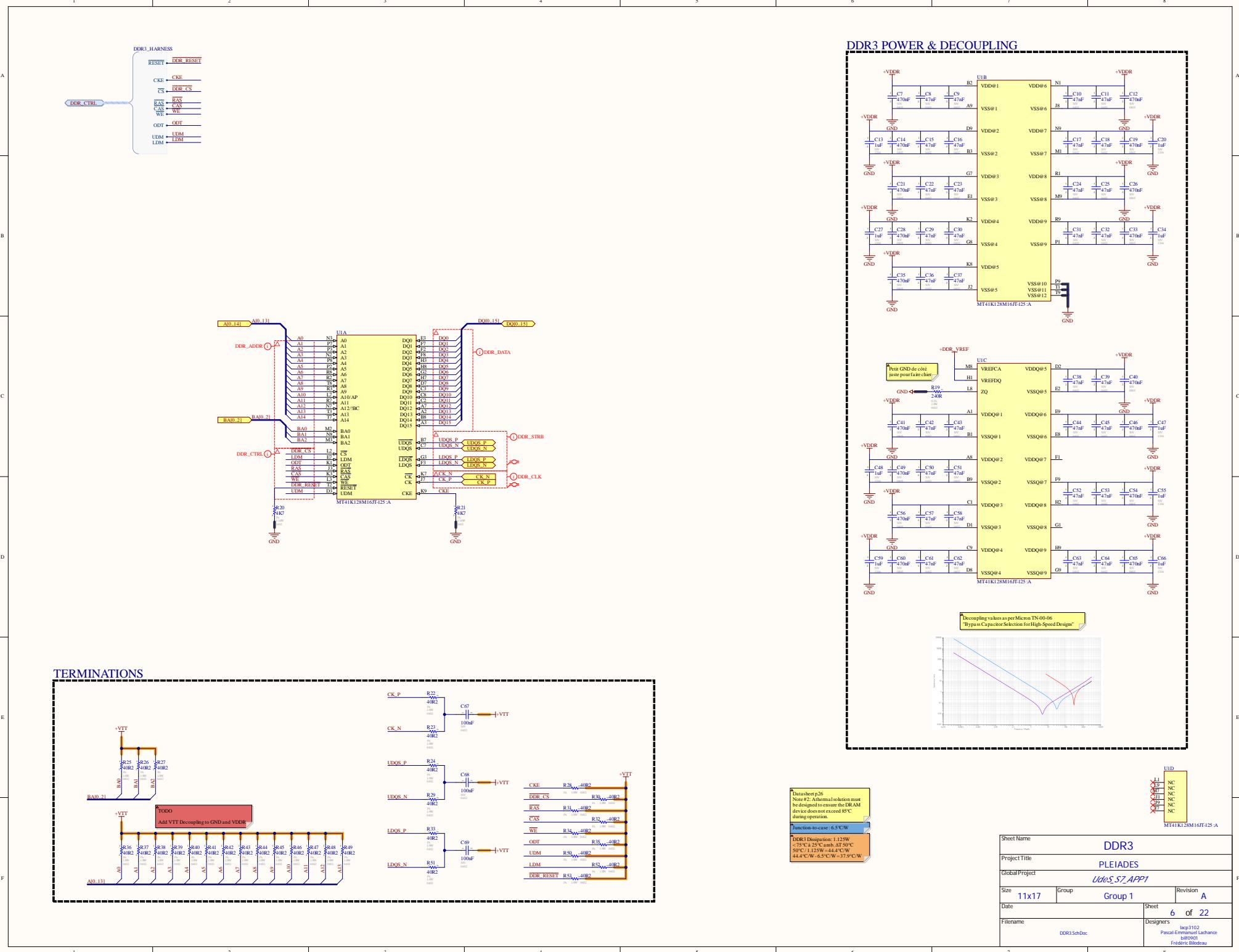
^A TODO
Switch cap for high isolation cap

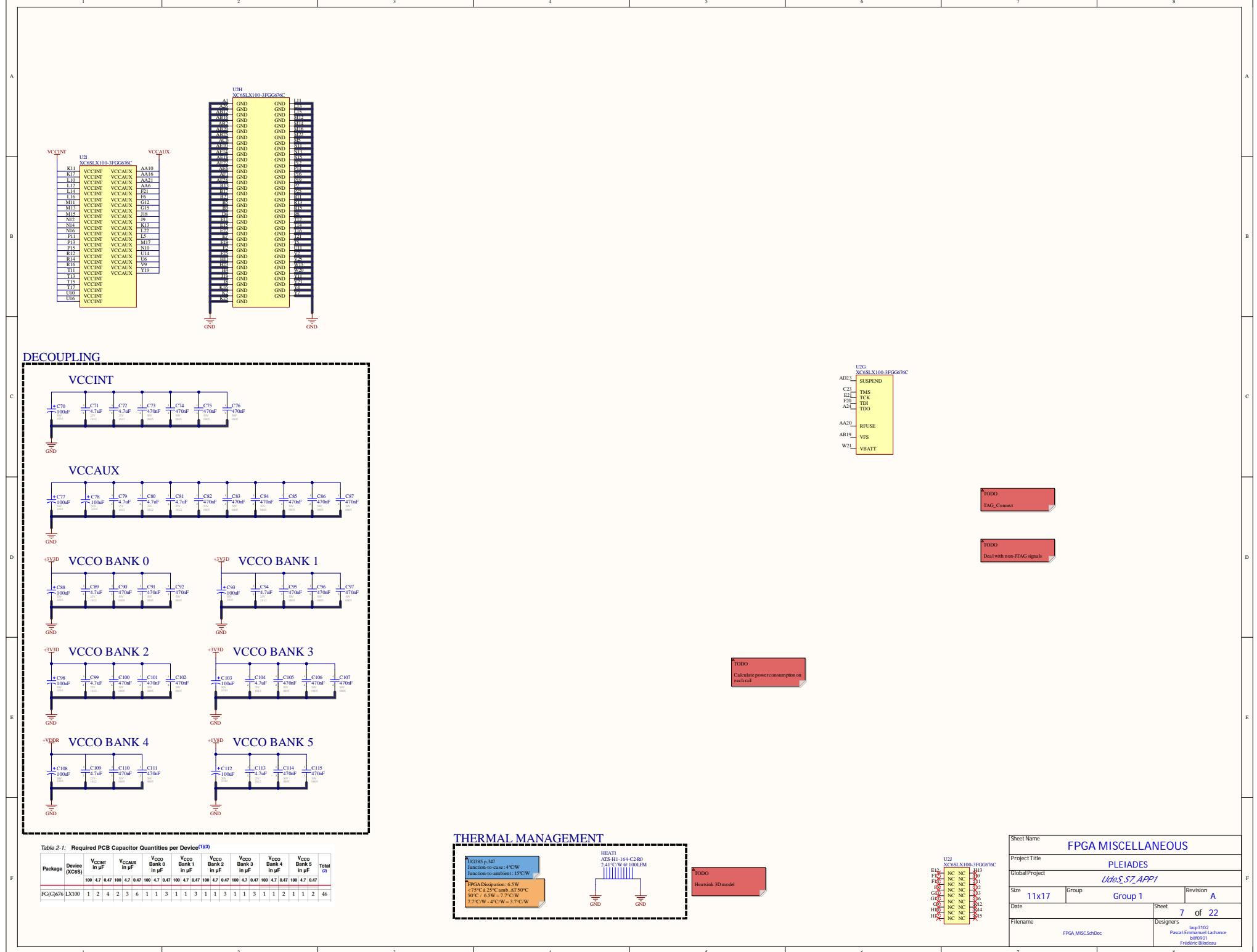
GND TESTPOINTS**FIDUCIALS**

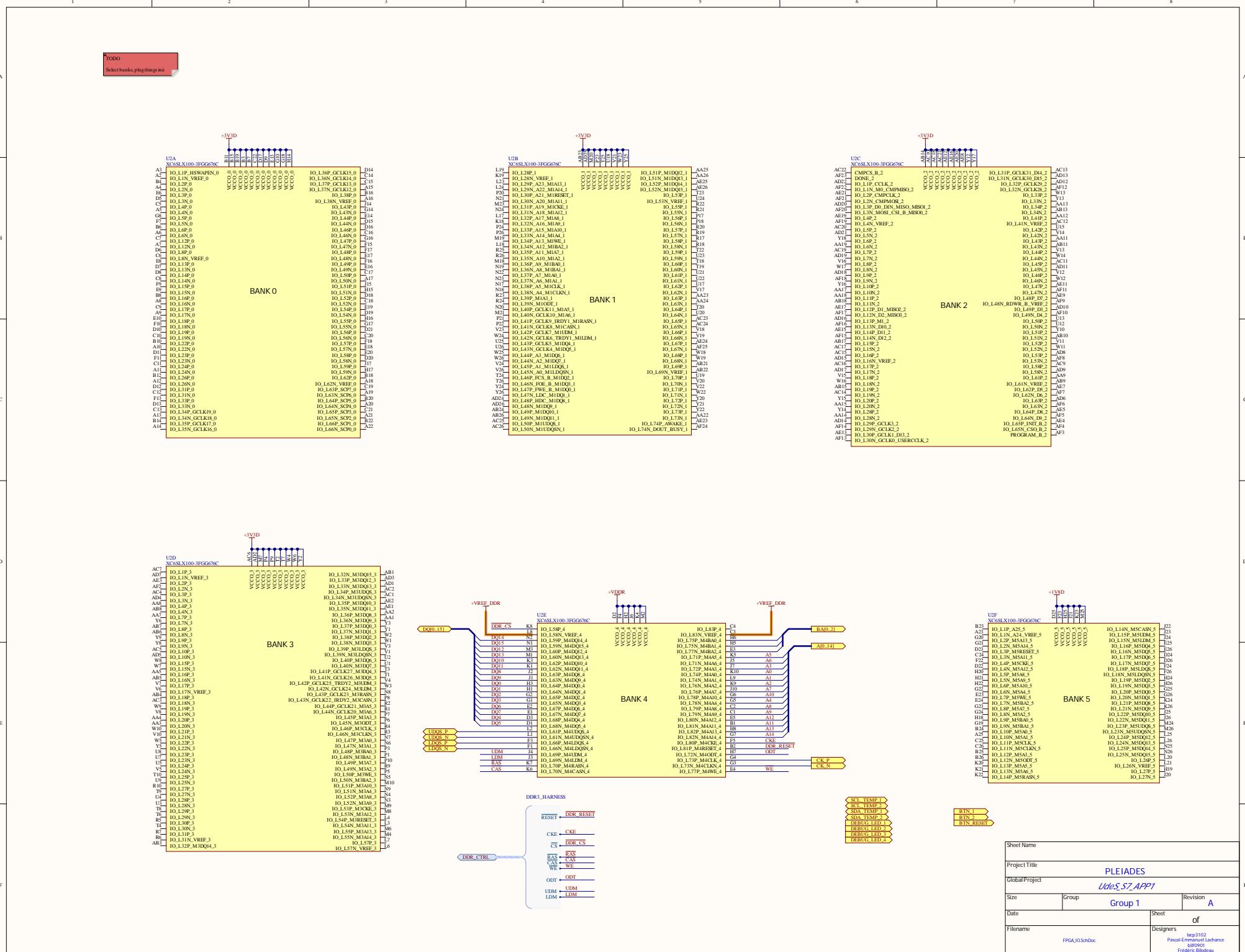
Sheet Name	MECHANICAL		
Project Title	PLEIADES		
Global Project	UdeSSZAPP1		
Size	11x17	Group	Group 1
Date		Revision	A
Sheet	4	of	22
Filename	Designers MECHANICAL.SchDoc		
	Iacp3102 Pascal-Etienne Lachance bilf0901 Frédéric Bilodeau		



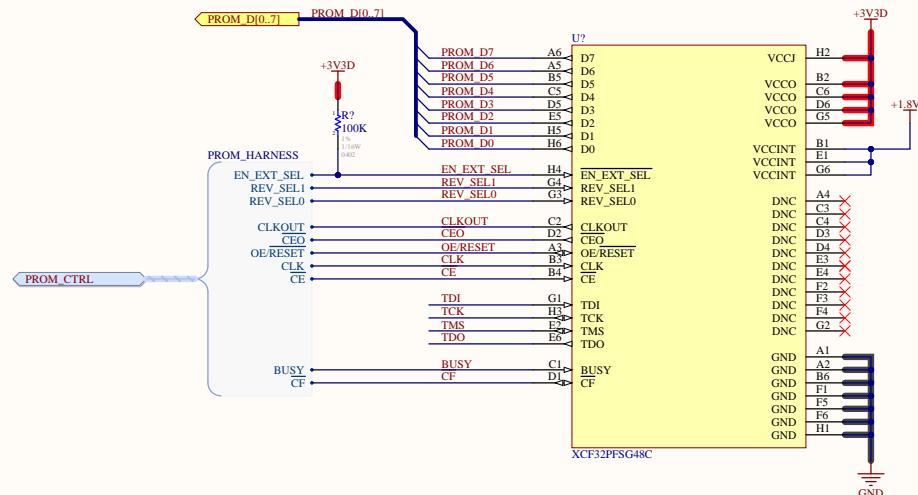
Sheet Name		
Project Title		
Global Project		
PLEIADES <i>UdeS.S7_APP1</i>		
Size	Group	Revision
	Group 1	A
Date	Sheet of	
Filename	Designers	
CLOCK.SchDoc	jeap3102 Pascal-Emmanuel Lachance bill9401 Frédéric Lachance	







A

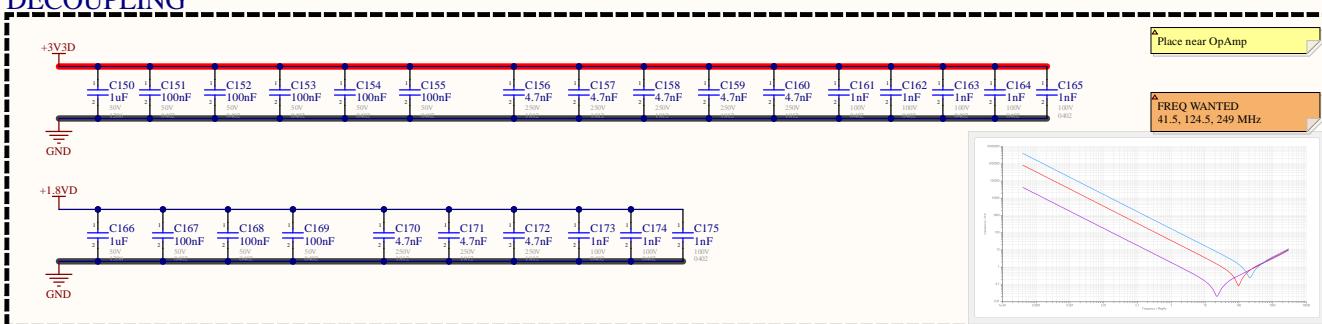


B

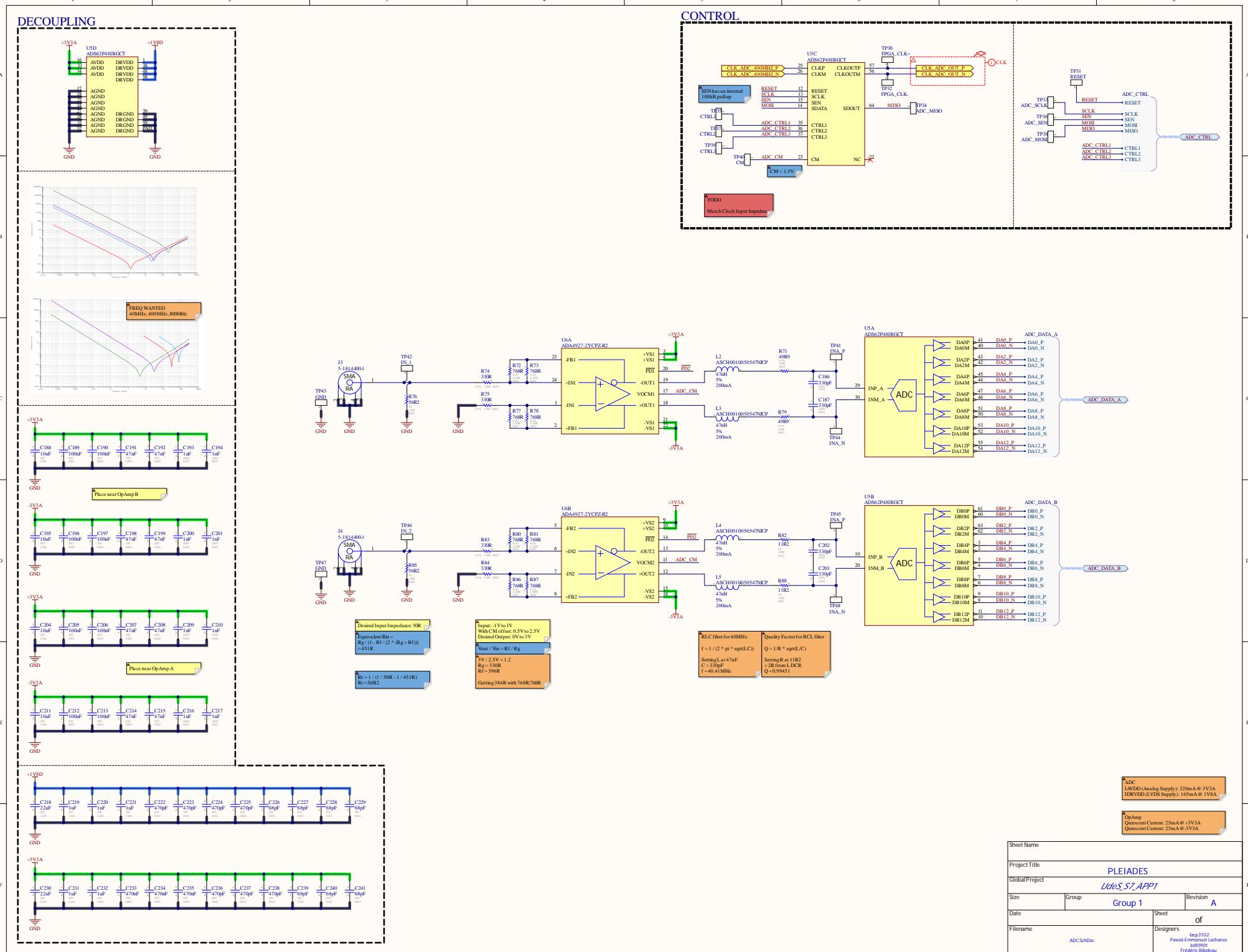


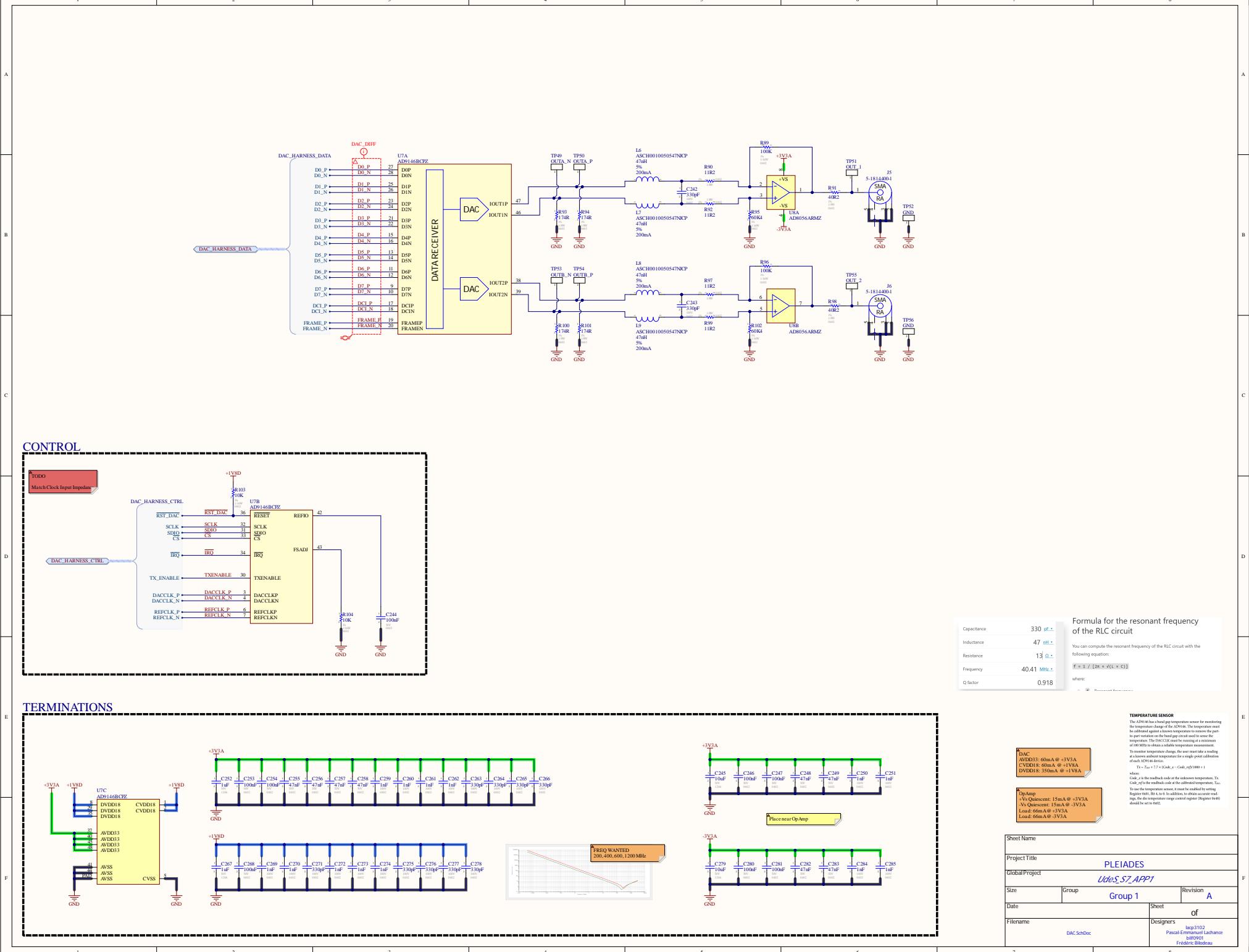
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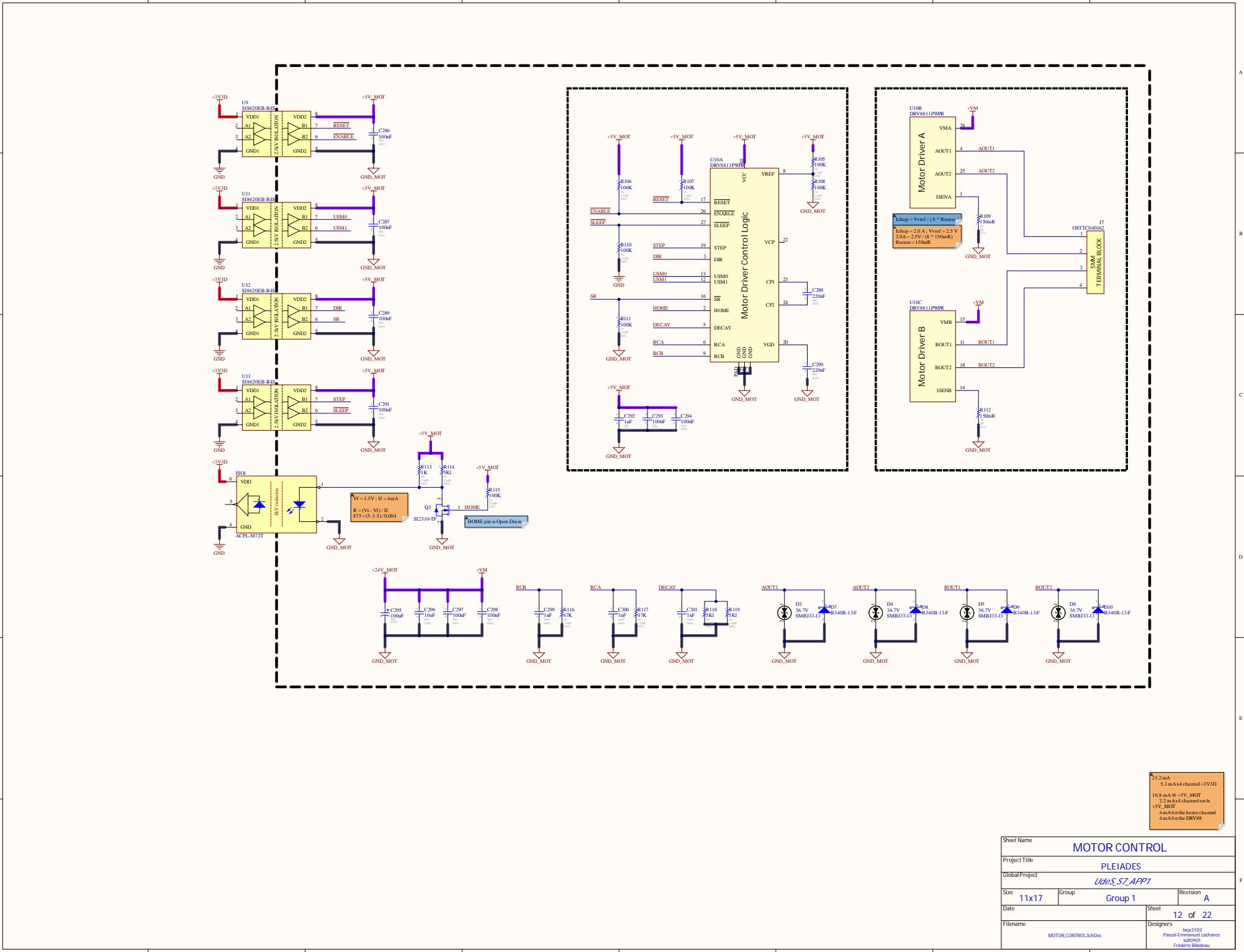
DECOUPLING

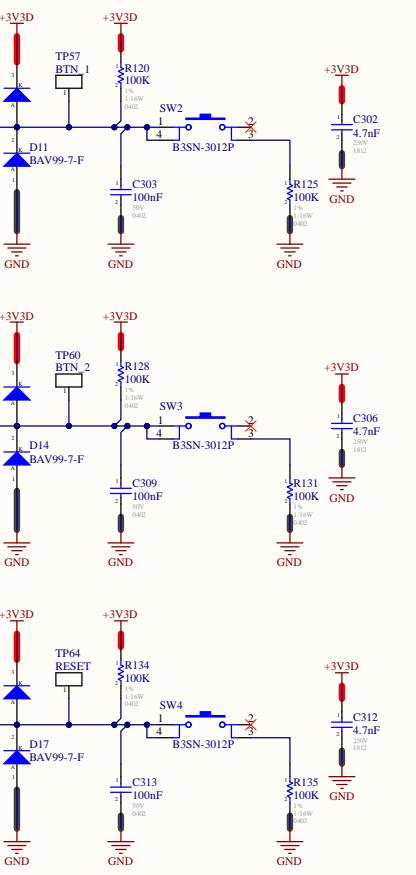
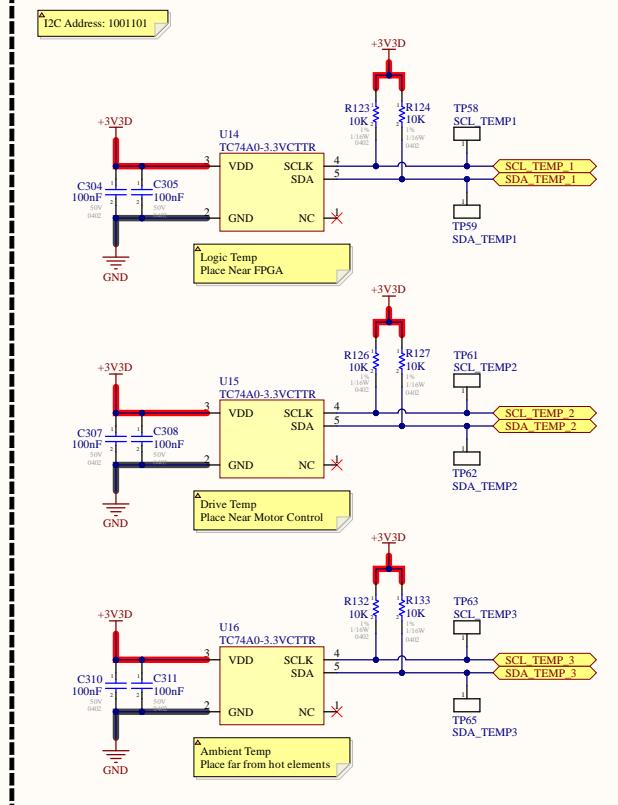
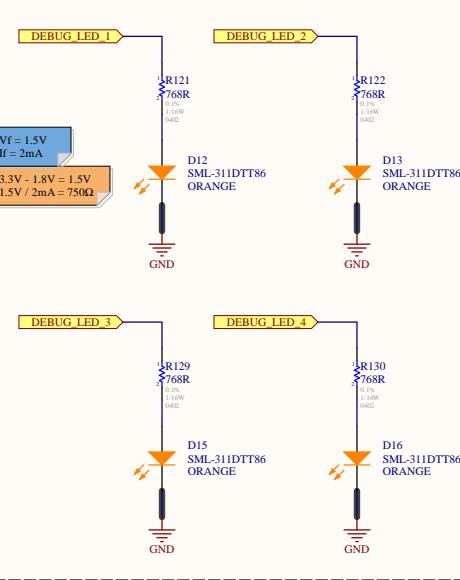


Sheet Name		PROM	
Project Title		PLEIADES	
Global Project		UdeS SZ APP1	
Size	11x17	Group	Group 1
Date		Revision	A
Filename	Sheet 9 of 22		Designers
PROM.SchDoc		Iacp102 Pascal-Etienne Lachance bilf0901 Frédéric Bilodeau	



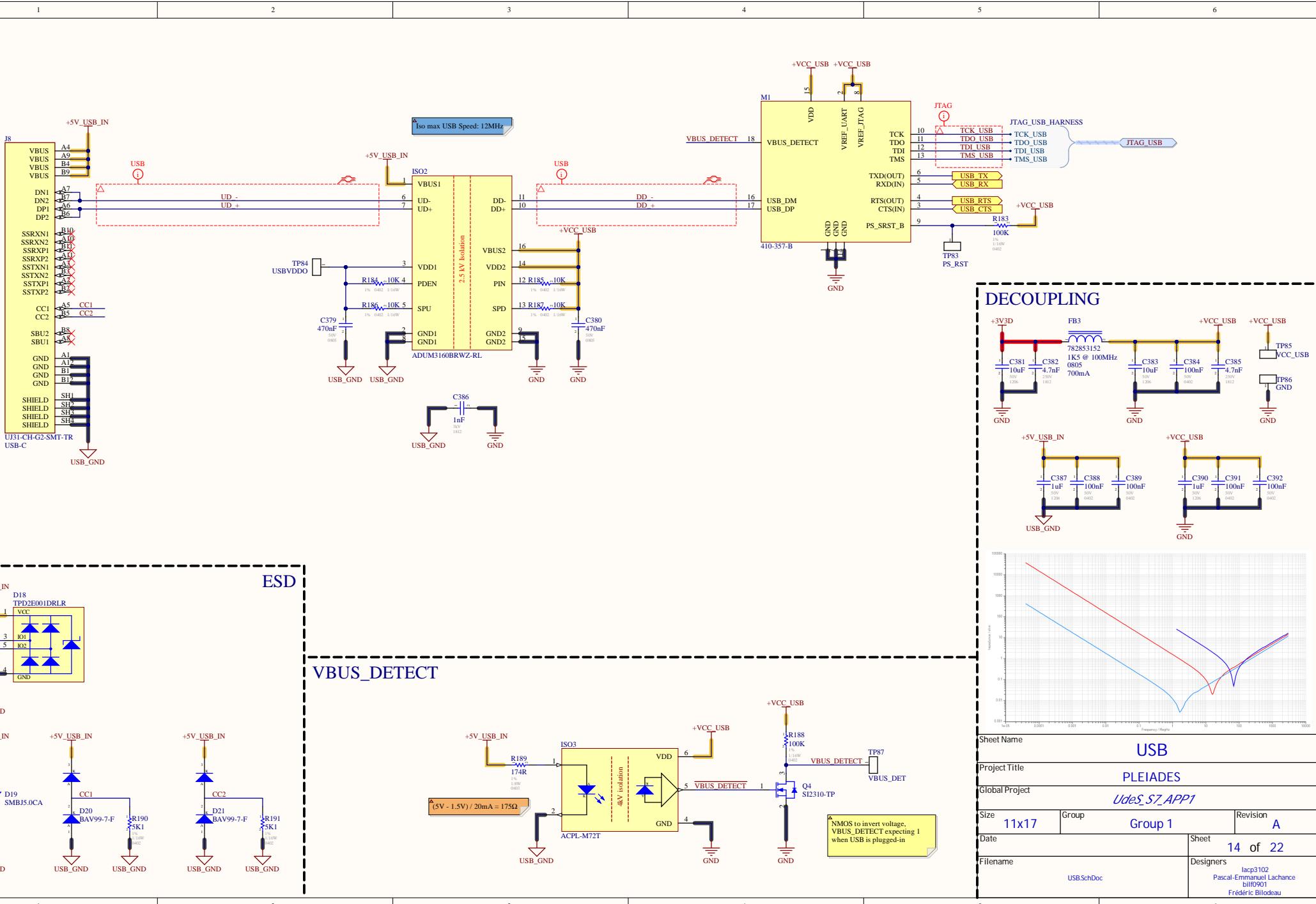


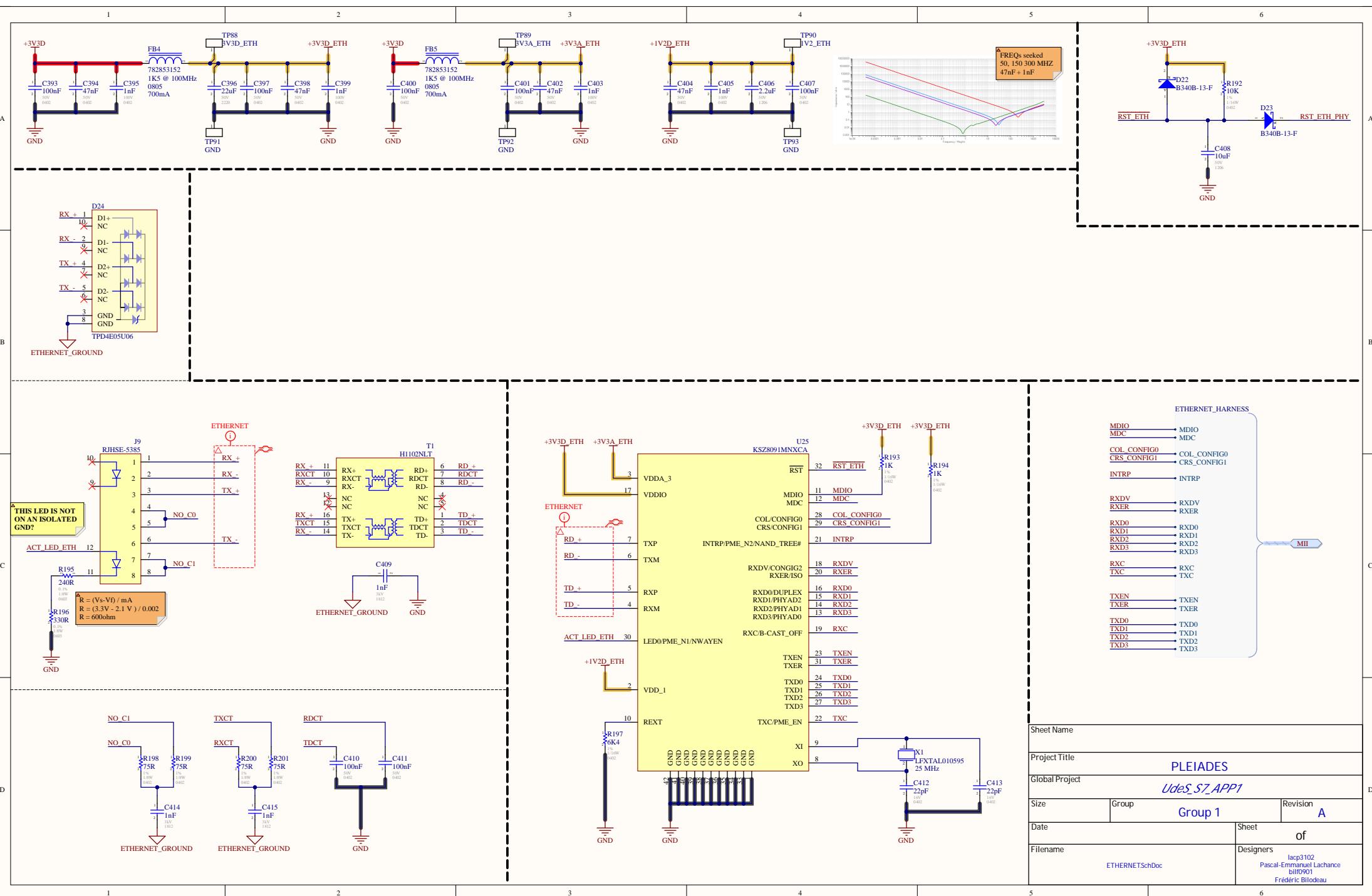


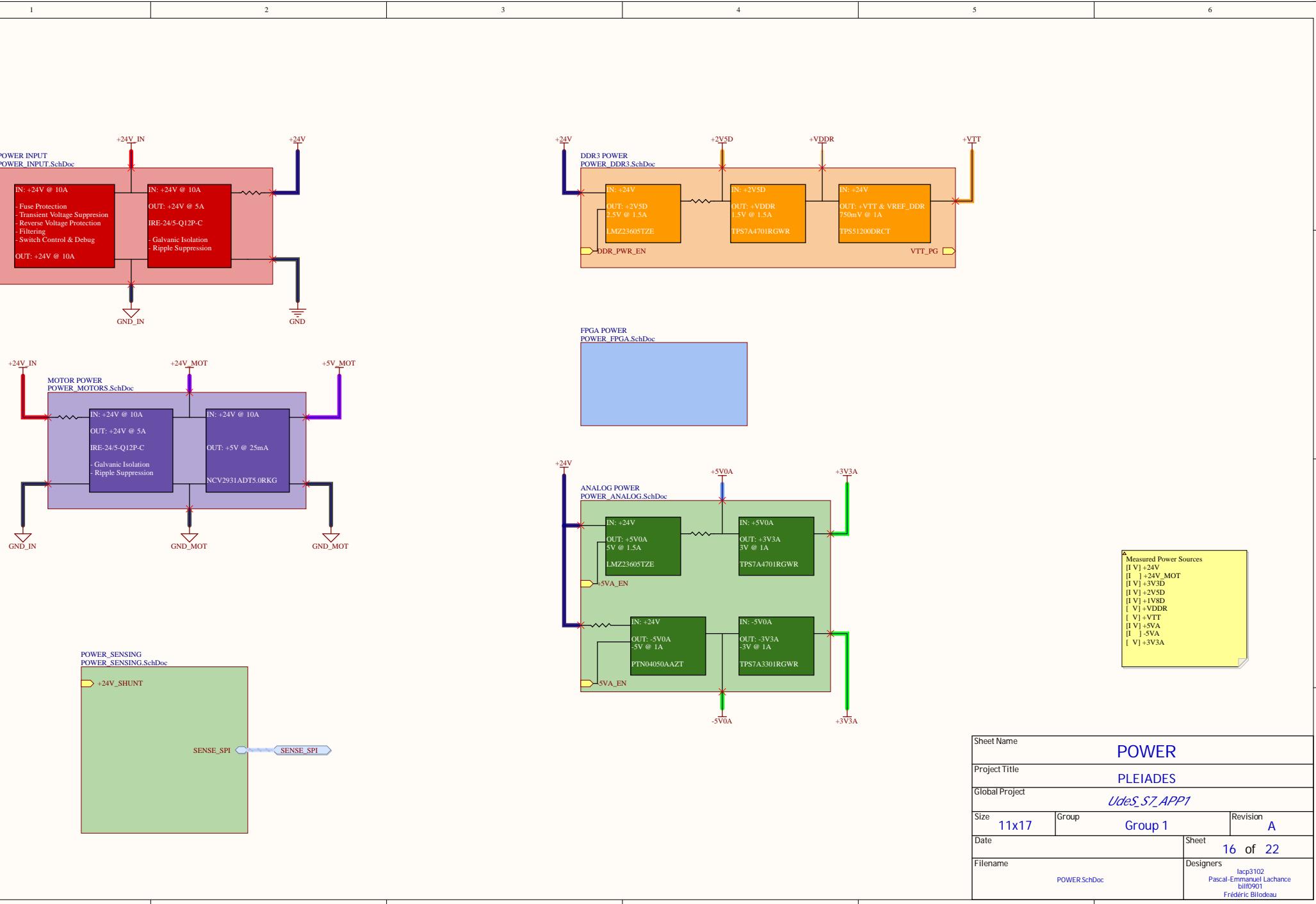
BUTTONS**TEMPERATURE SENSORS****DEBUG LEDs**

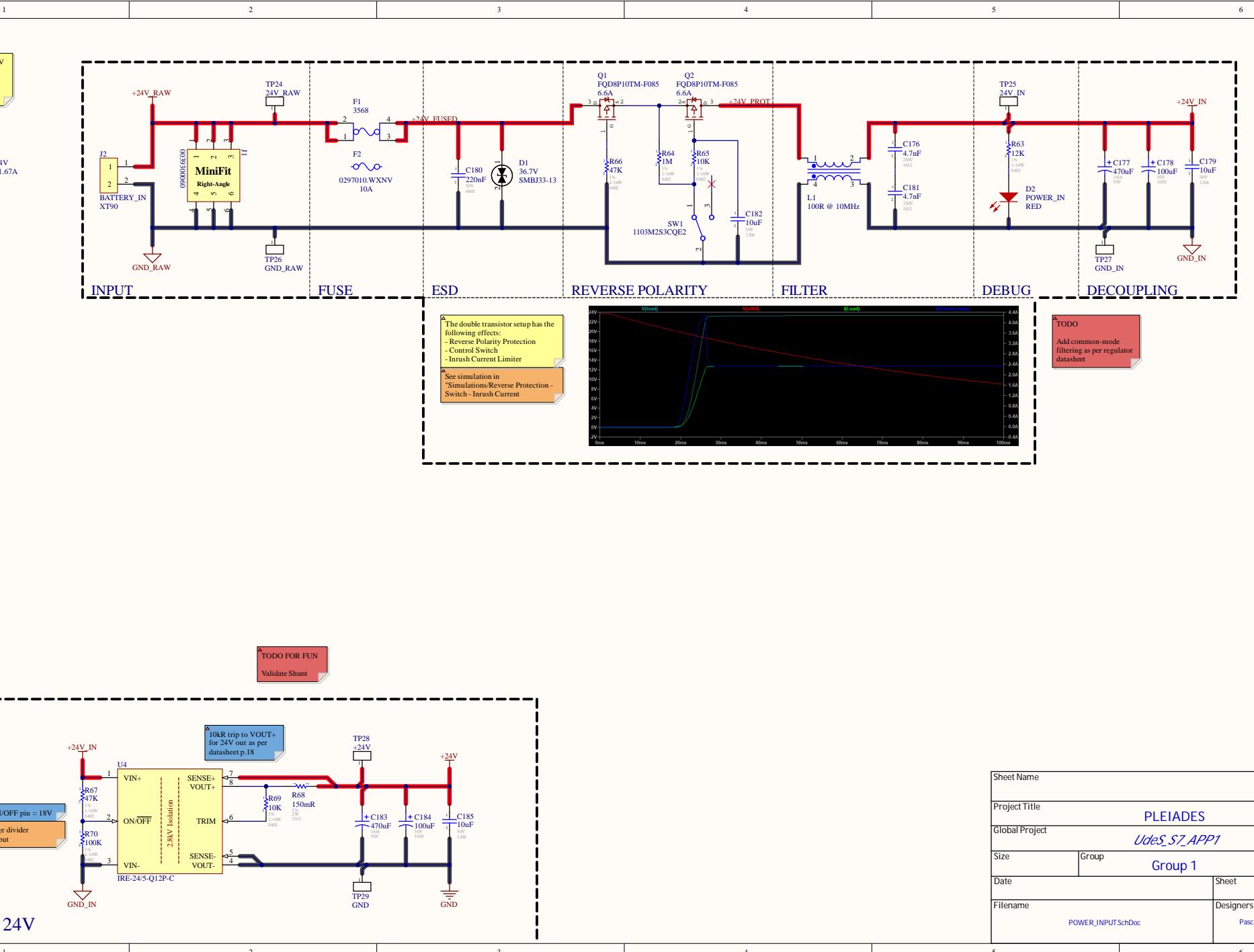
TODo FOR FUN
Add SD card

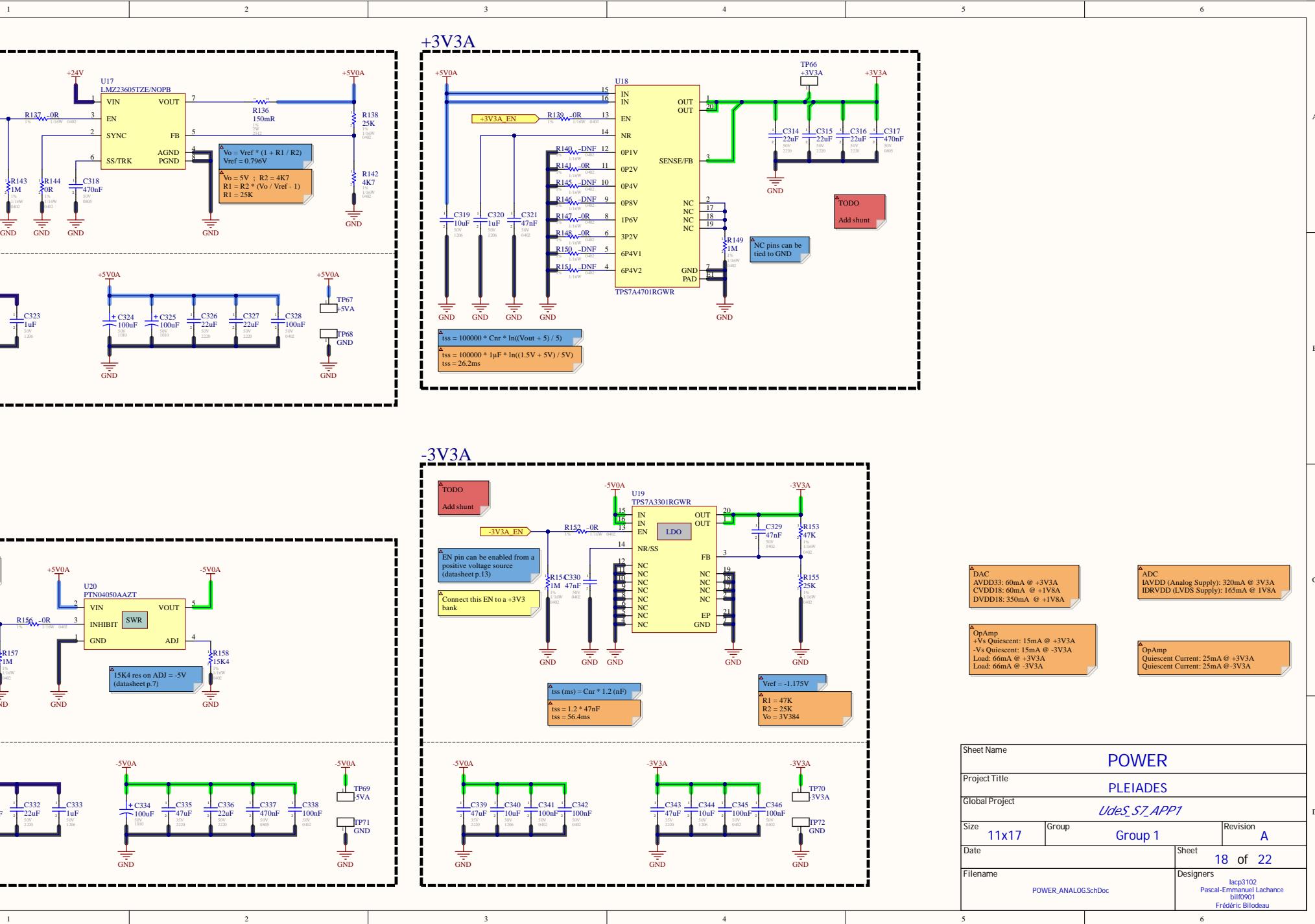
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Project Title					
PLEIADES					
Global Project	UdeSS7_APP1				
Size	Group	Group 1			
Date	Sheet of				
Filename	Designers				
USER_IO.SchDoc			Iacp102 Pascal-Emmanuel Lachance bilf0901 Frédéric Bilodeau		



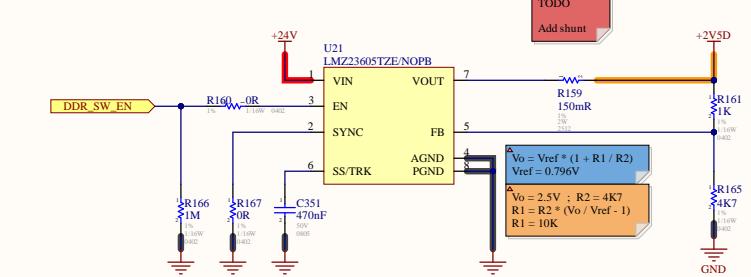




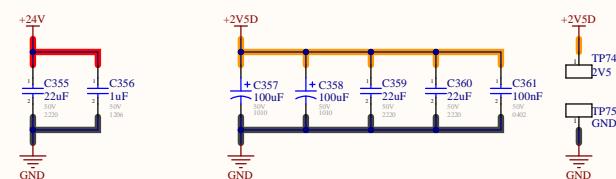




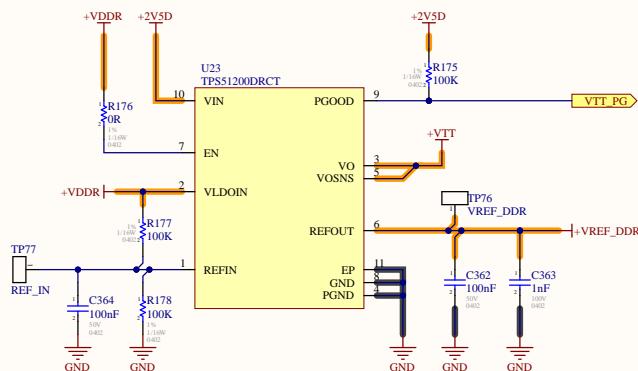
2.5V SWITCHING



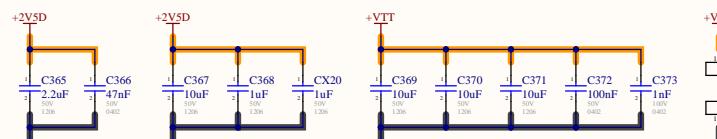
- 1 -



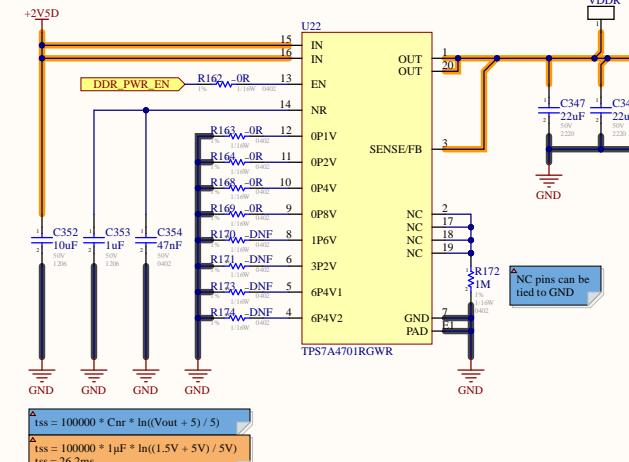
VTT



△ TODO



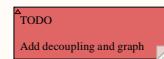
VDDR



```
tss = 100000 * Cnr * ln((Vout + 5) / 5)  
tss = 100000 * 1μF * ln((1.5V + 5V) / 5V)  
tss = 26.2ms
```

- △ DDR3 Power Consumption
Via DDR3_Power_Calc.XLSM
289.0mW
- △ IO Power Consumption
48 Outputs (Data) at 400mV / 40R
480mA
- △ Total Power Consumption:
1.5V @ 750mA

Sheet Name		
Project Title PLEIADES		
Global Project <i>UdeS_S7_APP1</i>		
Size	Group	Revision A
Date		Sheet of
Filename		Designers
POWER_DDR3.SchDoc		iacp3102 Pascal- Billard Lachance Frédéric Bélanger

1	2	3	4	5	6
A					A
B					B
C					C
D					D
1	2	3	4	5	6

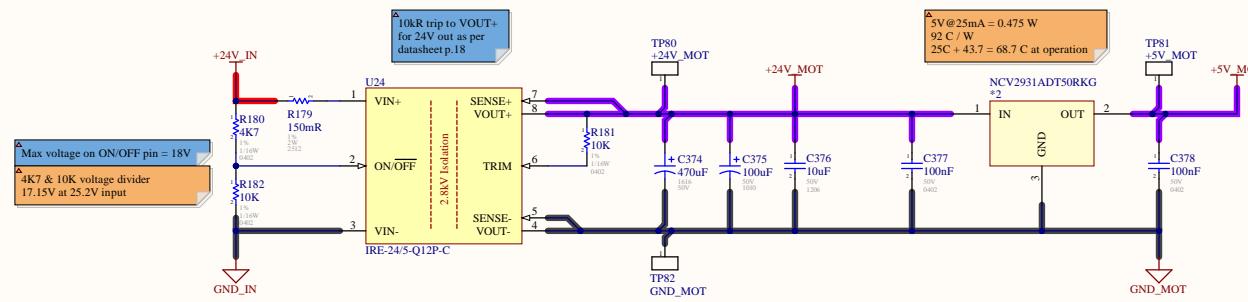
Sheet Name		POWER	
Project Title		PLEIADES	
Global Project		<i>UdeS SZ APP1</i>	
Size	11x17	Group	Group 1
Date			Sheet 20 of 22
Filename	Designers POWER_FPGA.SchDoc		Iacp3102 Pascal-Etienne Lachance bilf0901 Frédéric Bilodeau

A

TODO
Finish this

TODO
Shunt

B



ISOLATED 24V

C

D

Sheet Name	POWER		
Project Title	PLEIADES		
Global Project	UdeS SZ APP1		
Size	11x17	Group	Group 1 Revision A
Date		Sheet	21 of 22
Filename	POWER_MOTORS.SchDoc		
Designers	Iacp3102 Pascal-Etienne Lachance bilf0901 Frédéric Bilodeau		

