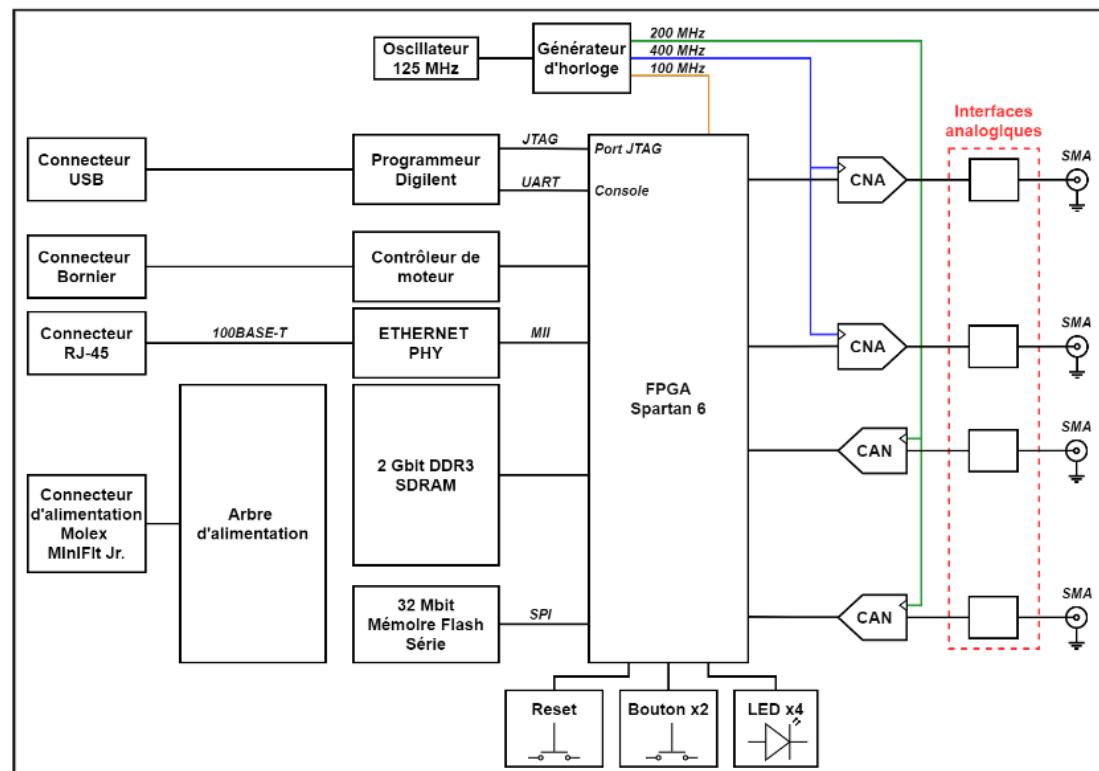


PLEIADES

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.

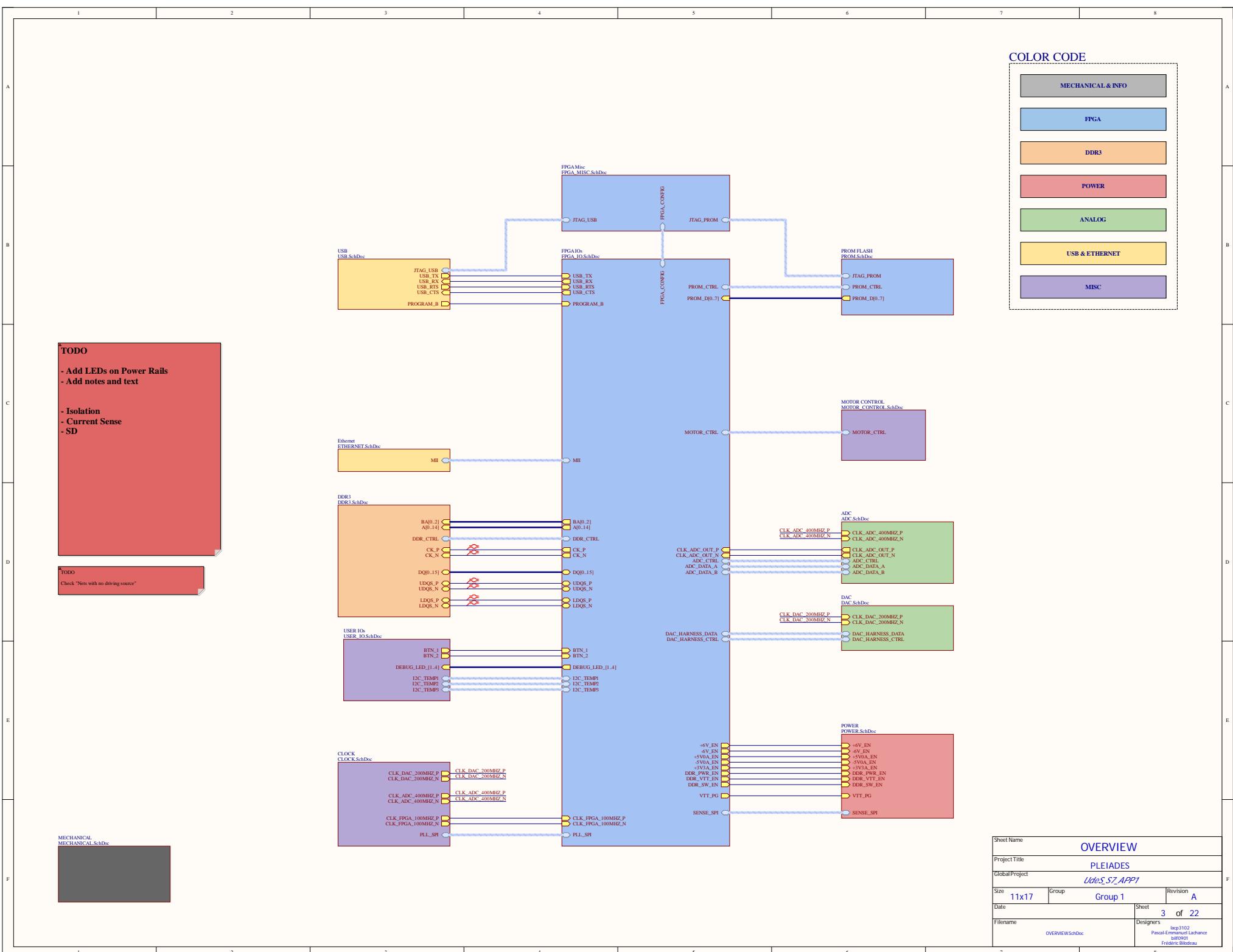
The following major changes have been done:

- Full Galvanic Isolation on 24V input and motor output
- Voltage and Current sensing on all major power rails
- A TAG-CONNECT programmation interface with JTAG source selection
- A bunch of testpoints and debug features

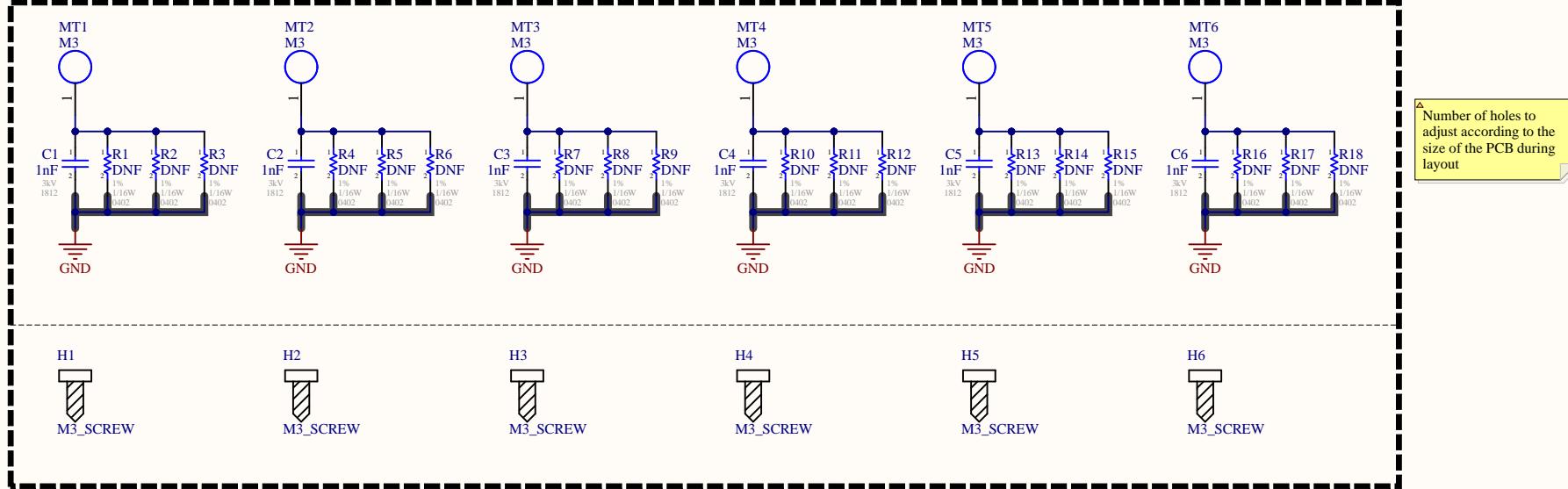
Note that a lot of resistors for patches have been added to strapping pins for configuration of all chips.

Sheet Name		TITLE PAGE	
Project Title		PLEIADES	
Global Project		<i>UdeS_S7_APP1</i>	
Size	Group	Group 1	Revision
11x17			A
Date	Sheet	1	of 22
Filename	TITLE.SchDoc		Designers
	iacp3102 Pascal-Emmanuel Lachance bilf0901 Frédéric Bilodeau		

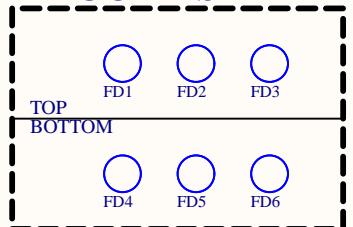
1	2	3	4	5	6	7	8
A							
RESISTORS RESISTORS DNF							
CAPACITORS CAPACITORS DNF							
INDUCTORS							
				DIODES			
TODO Change ferrites							
COLOR CODE							
General Notes Assembly, Part Locations, Fabrication, Debug Information etc.							
Data sheet info Part information, addresses, registers, pull-up/pull-downs, etc.							
Calculations Values, tensions & currents, passives, etc.							
TODO Things that are left to be done, and who should do it							
Sheet Name INFO Project Title PLEIADES Global Project UdeS_S7_APP1 Size 11x17 Group Group 1 Revision A Date Sheet 2 of 22 Filename INFO.SchDoc Designers Iacp3102 Pascal-Etienne Lachance bill0901 Fredéric Blidreau							



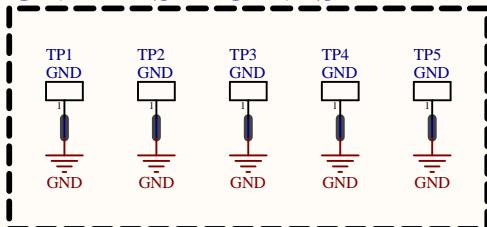
MOUNTING HOLES



FIDUCIALS



GND TESTPOINTS



Sheet Name

MECHANICAL

Project Title

PLEIADES

Global Project

UdeS_S7_APP1

Size

11x17

Group

Group 1

Revision

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Date

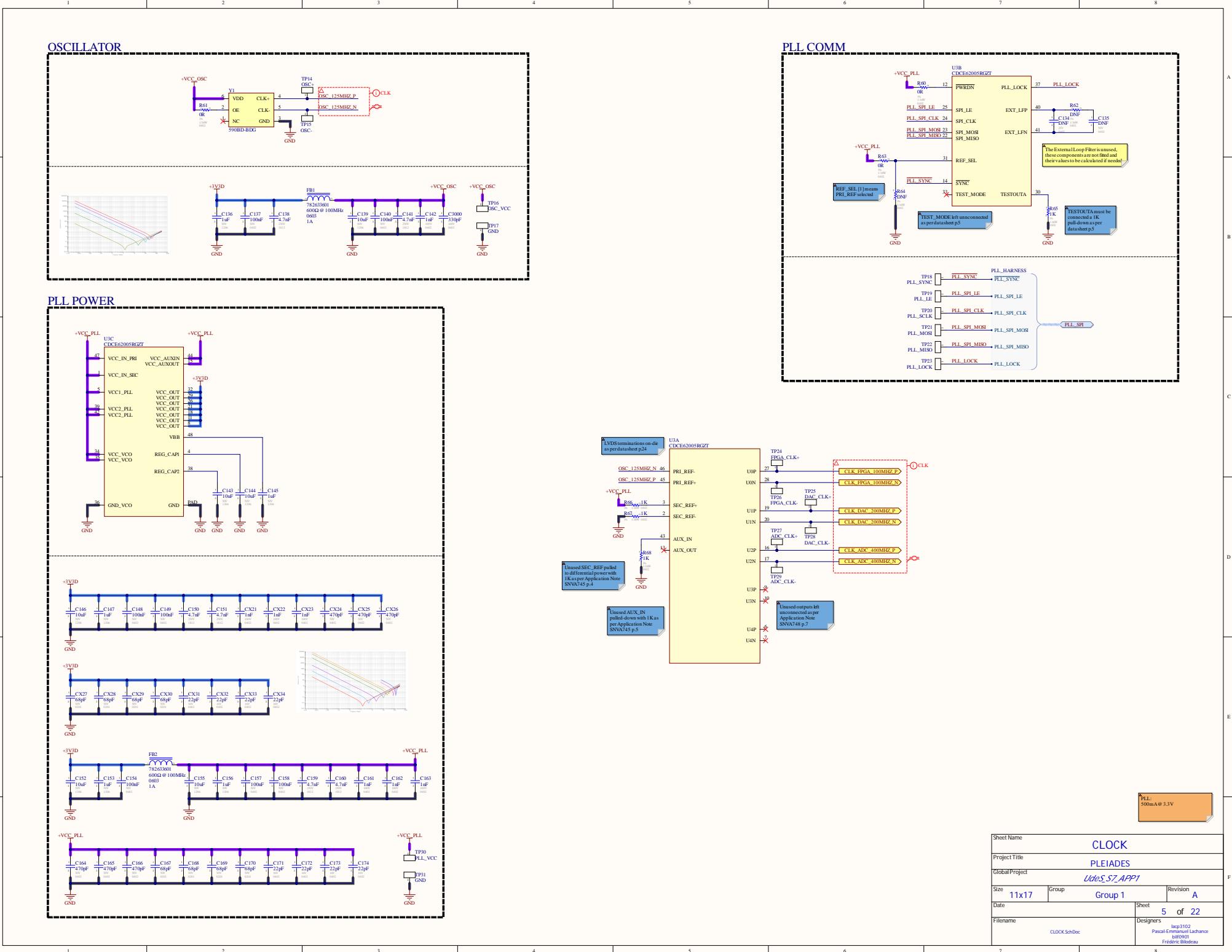
Sheet **4** of **22**

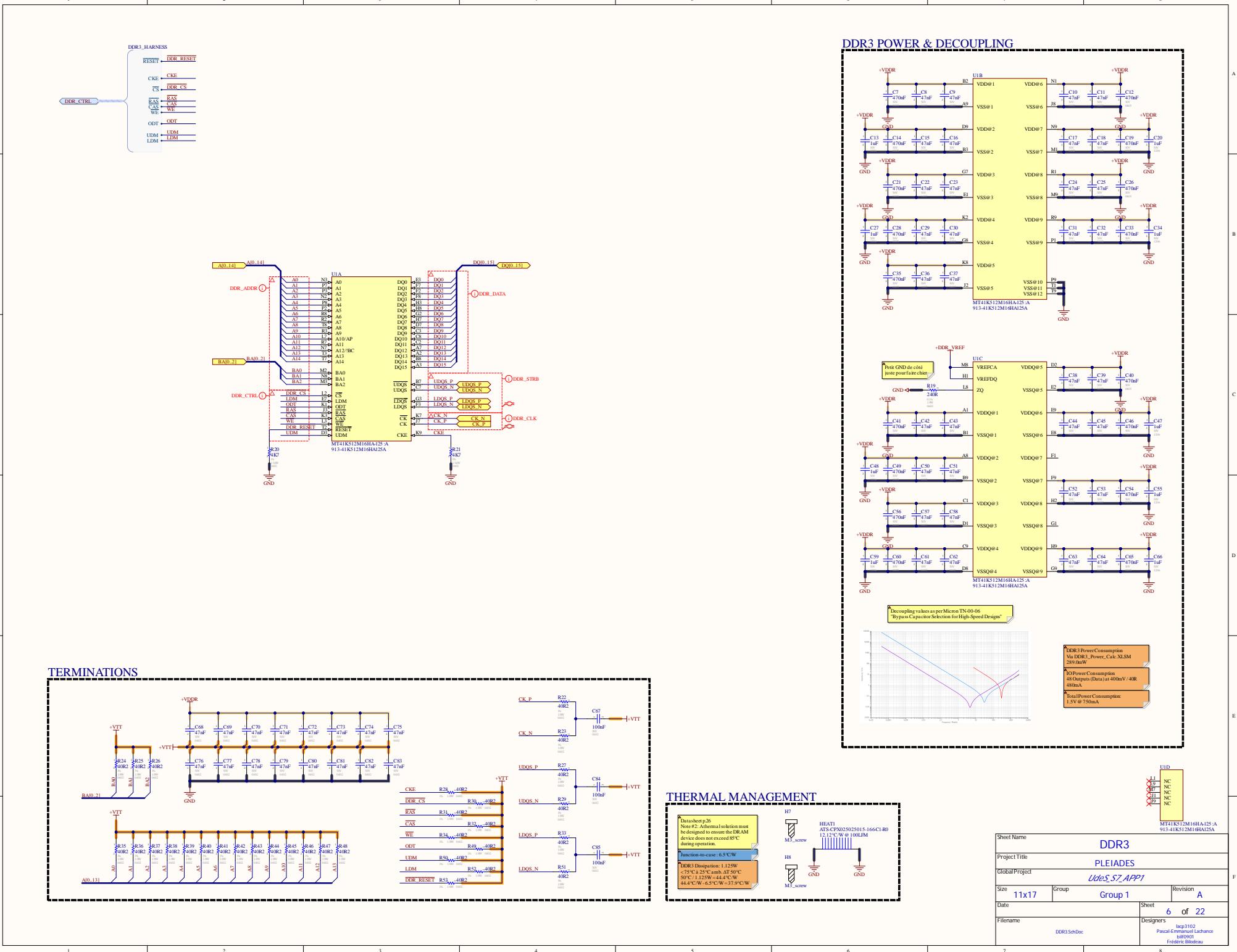
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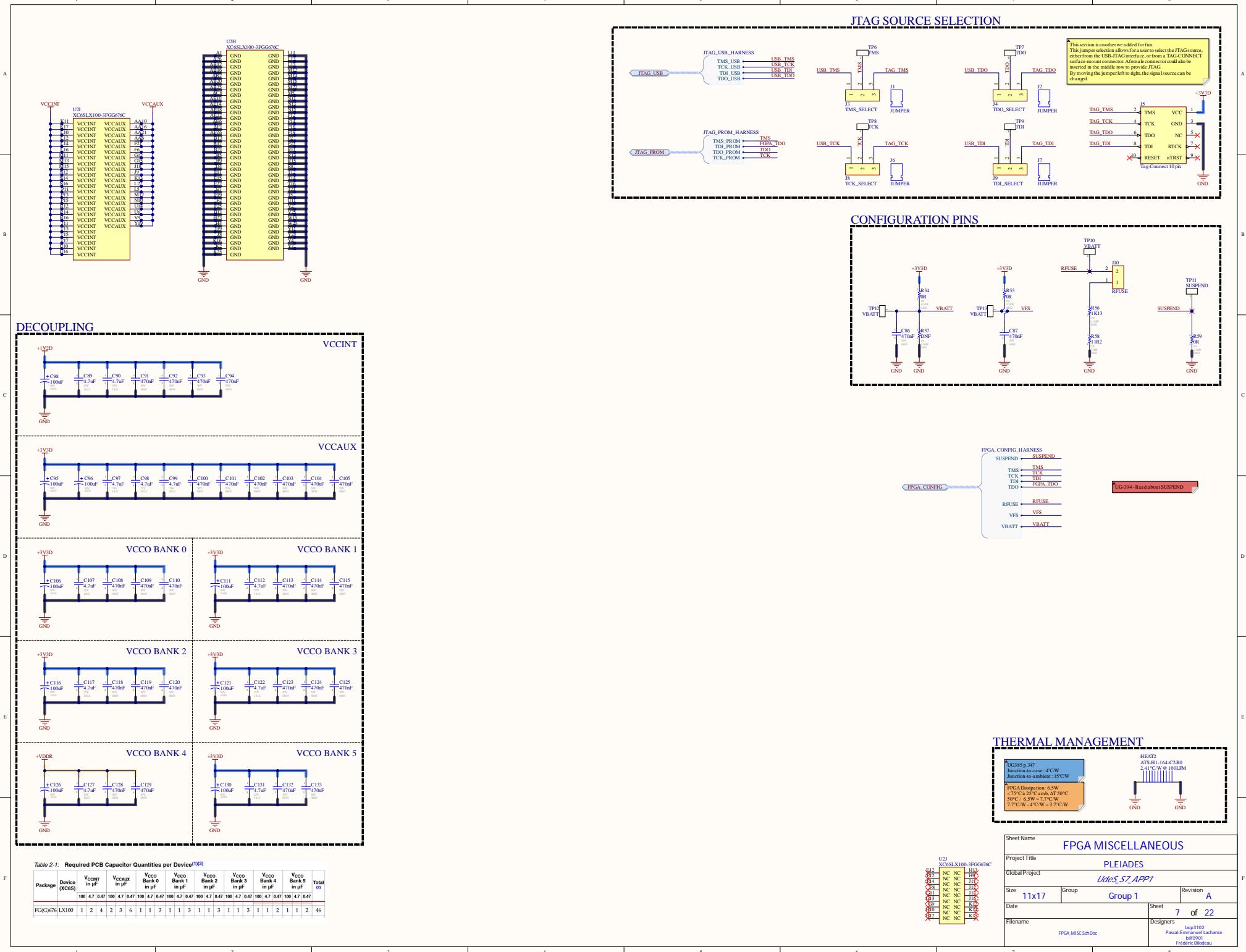
MECHANICAL.SchDoc

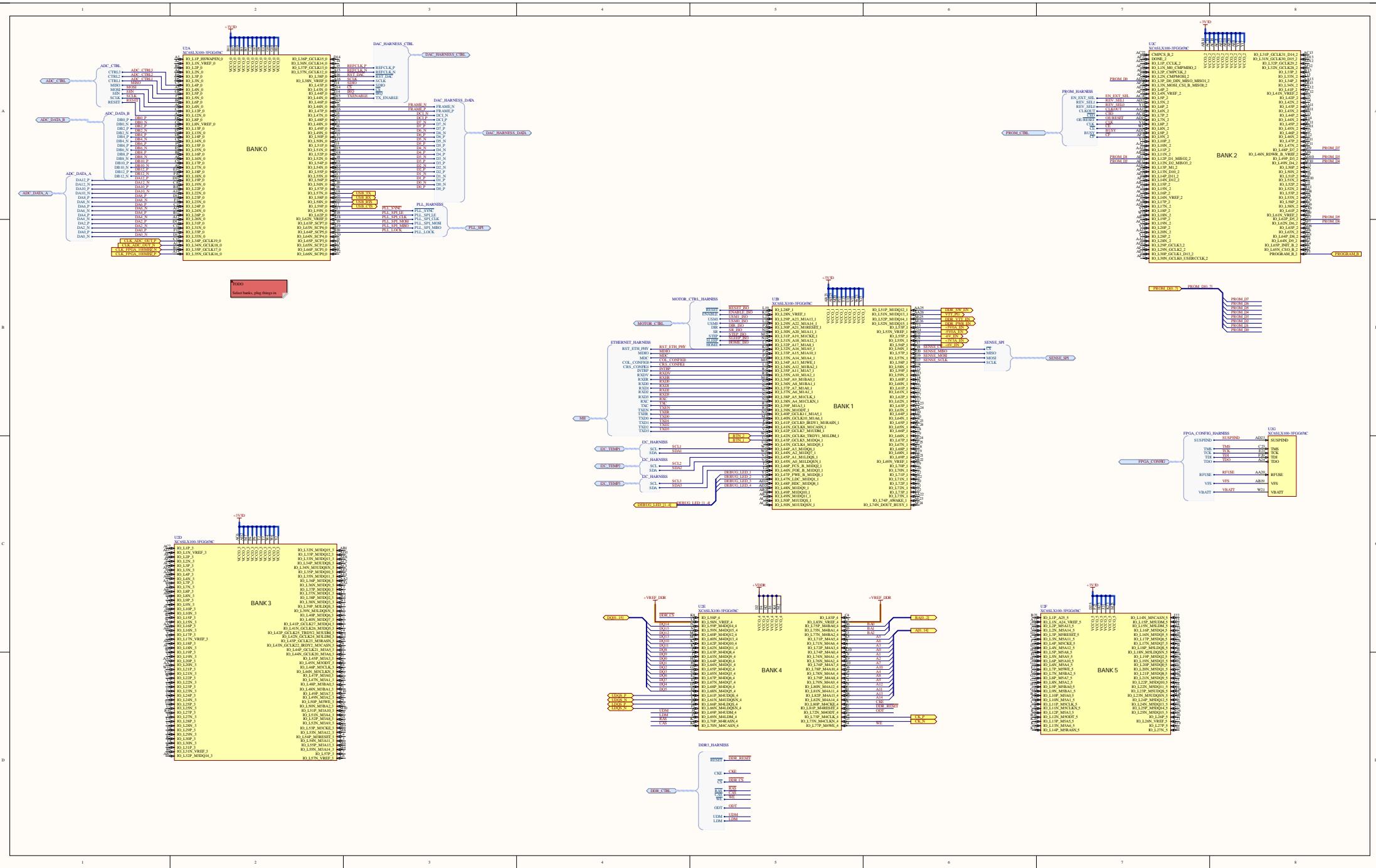
Designers

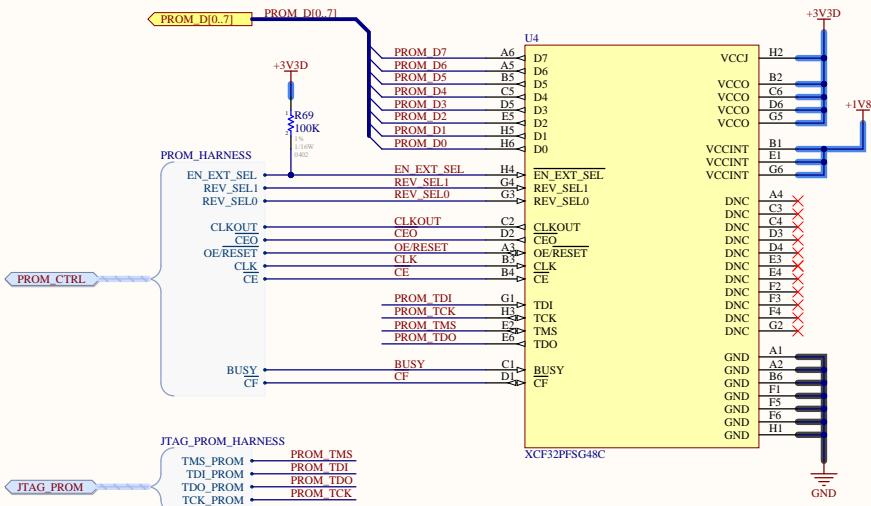
 lacp3102
 Pascal-Emmanuel Lachance
 bilf0901
 Frédéric Bilodeau



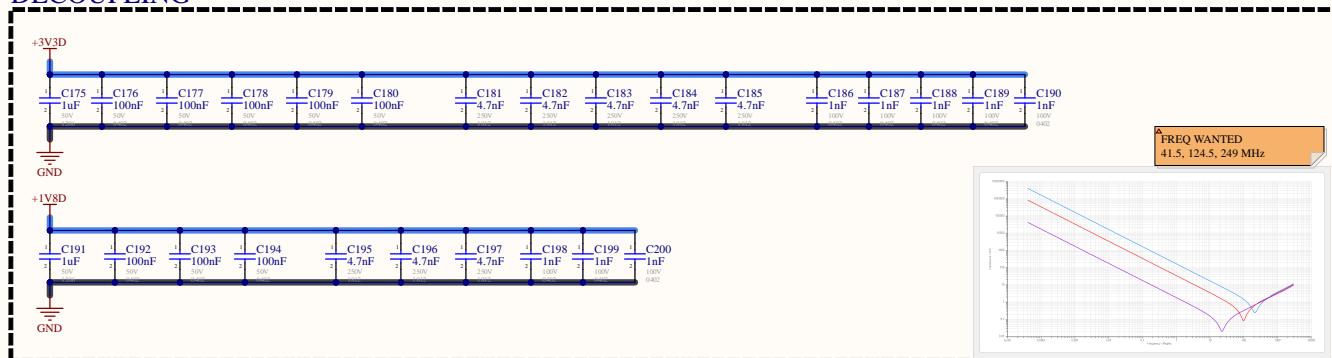






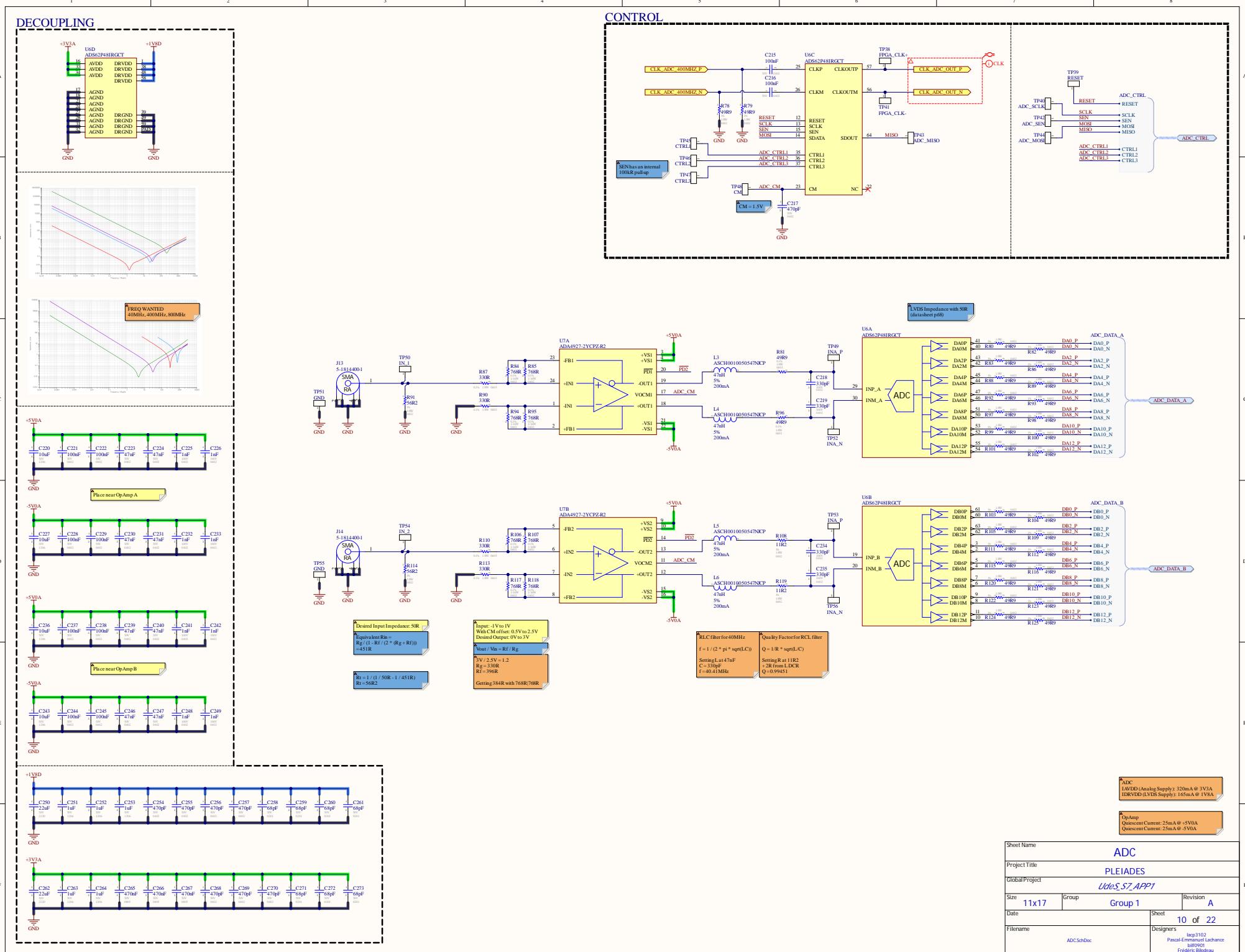


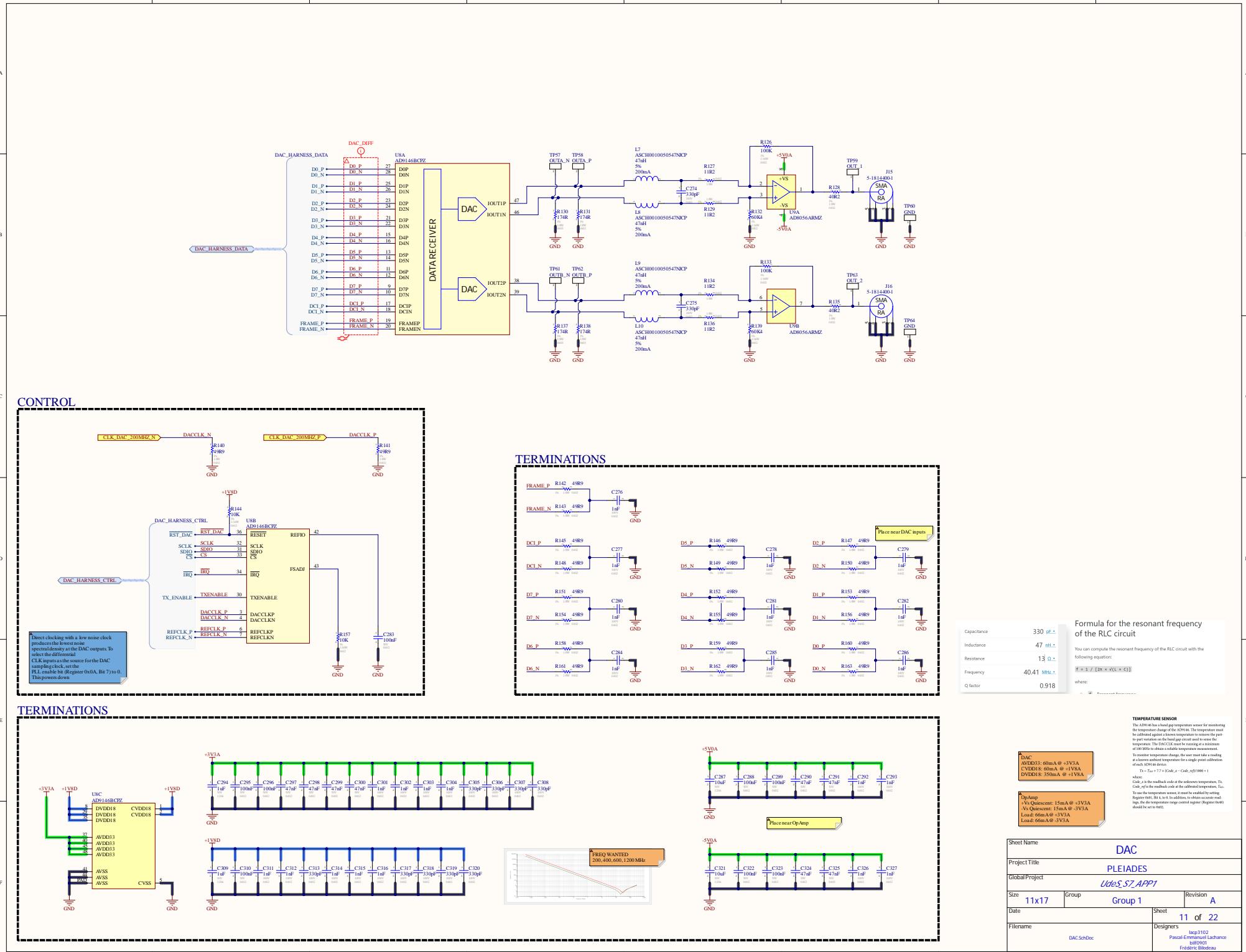
DECOUPLING

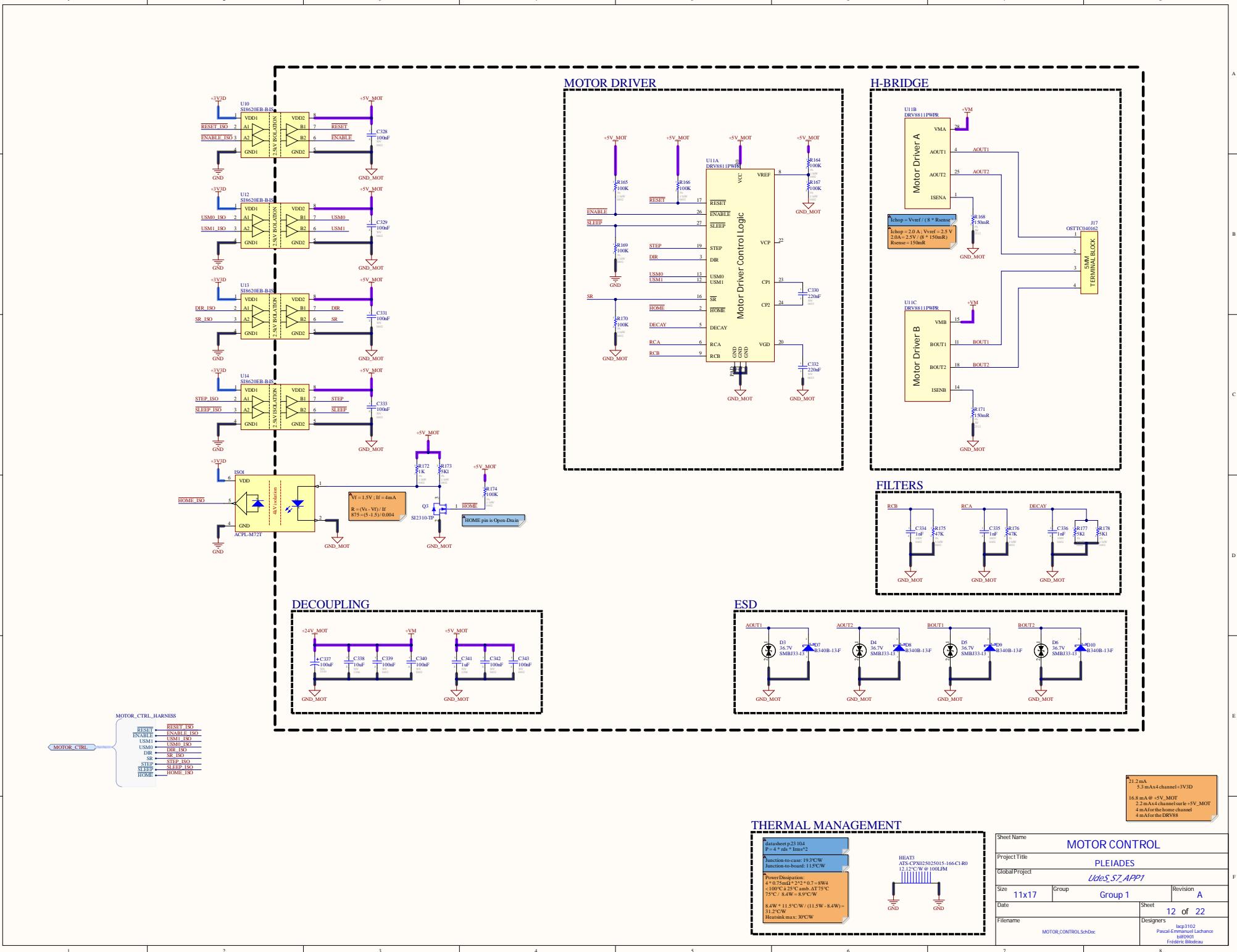


PROM
SPEED = 40MHz
1V8 @ 10mA
3V3 @ 45mA

Sheet Name	PROM		
Project Title	PLEIADES		
Global Project	UdeS SZ APP1		
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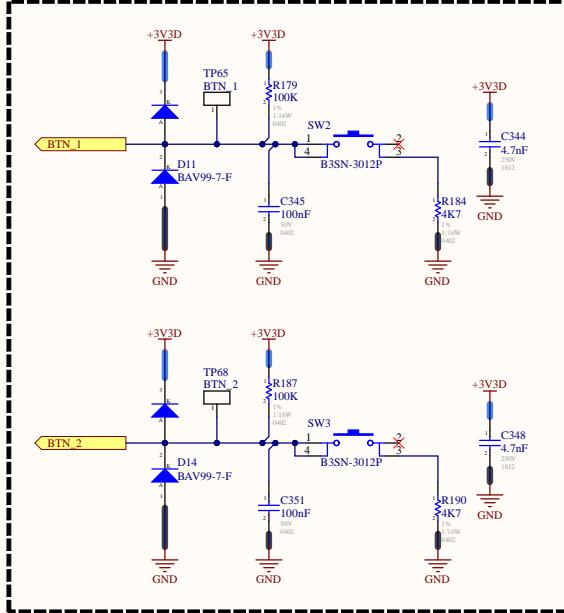




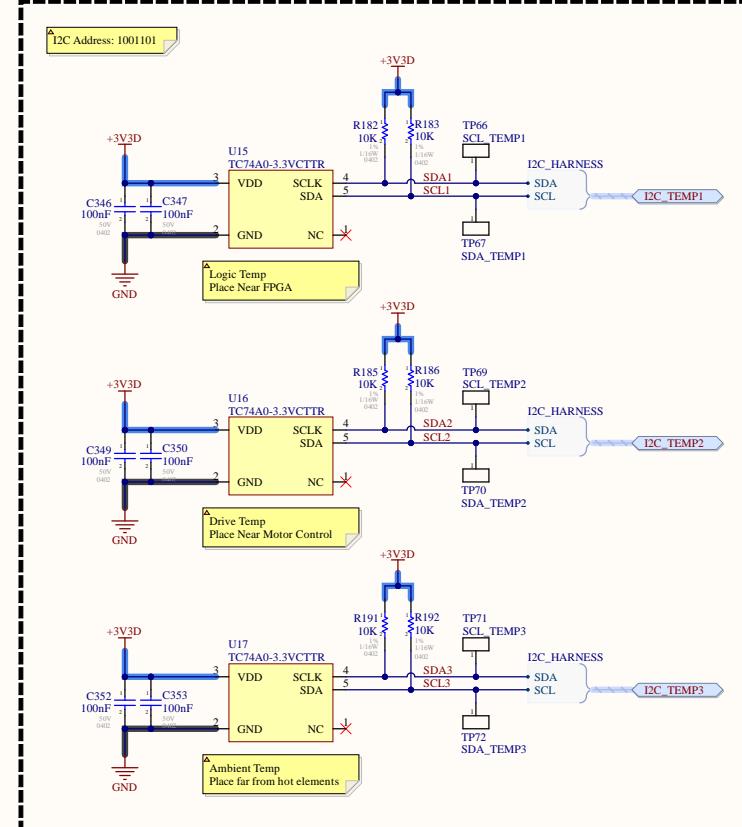


1 2 3 4 5 6

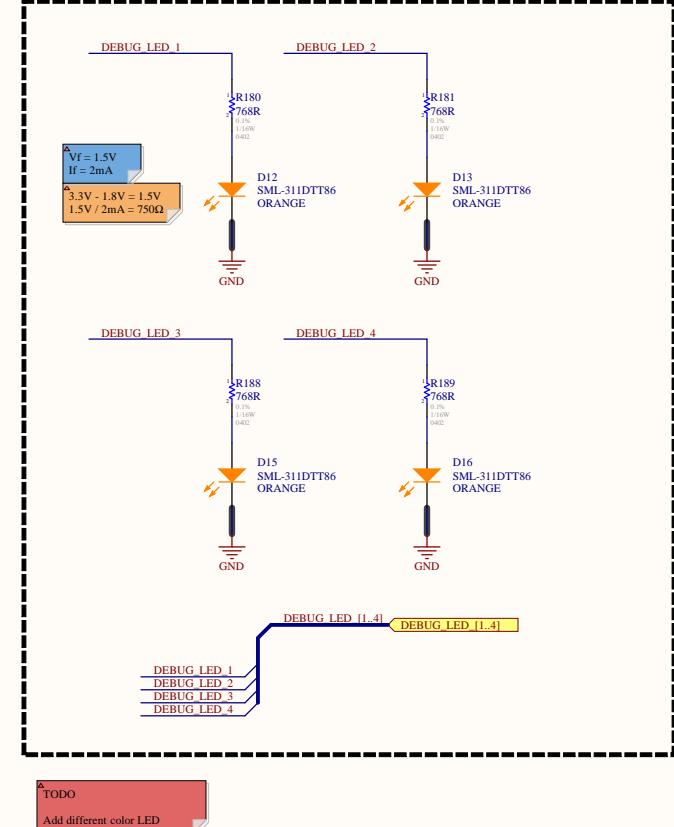
BUTTONS



TEMPERATURE SENSORS

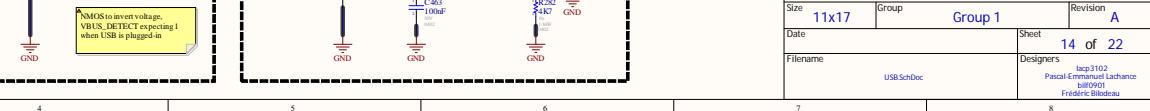
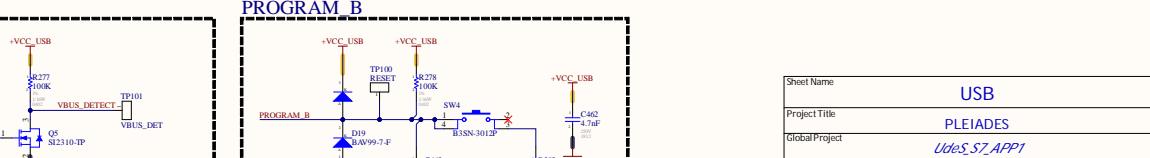
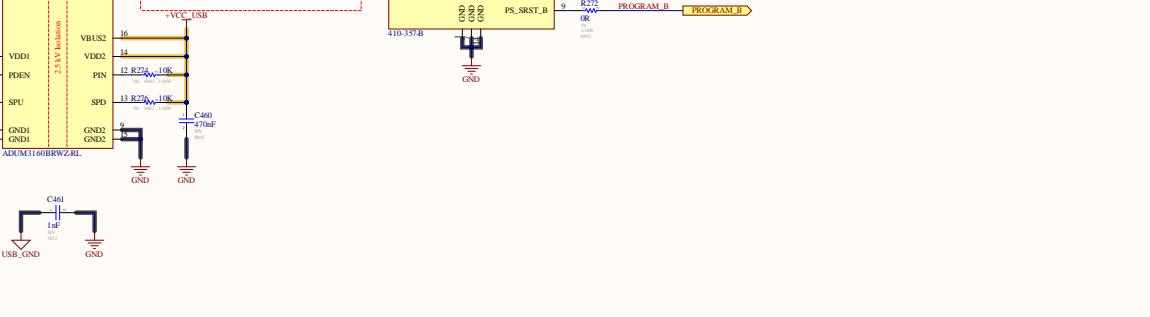
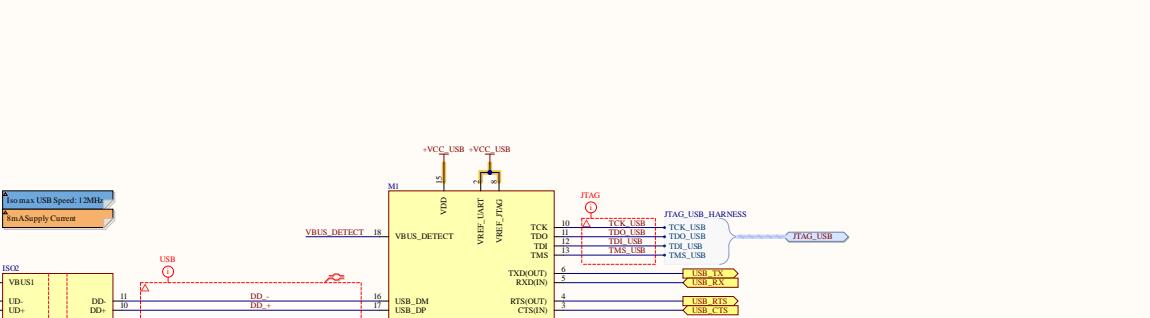
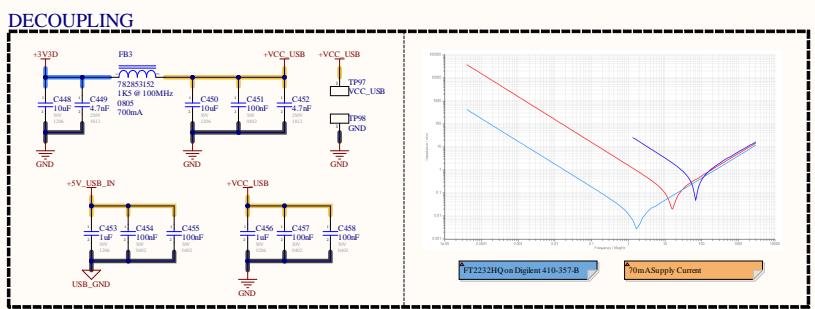


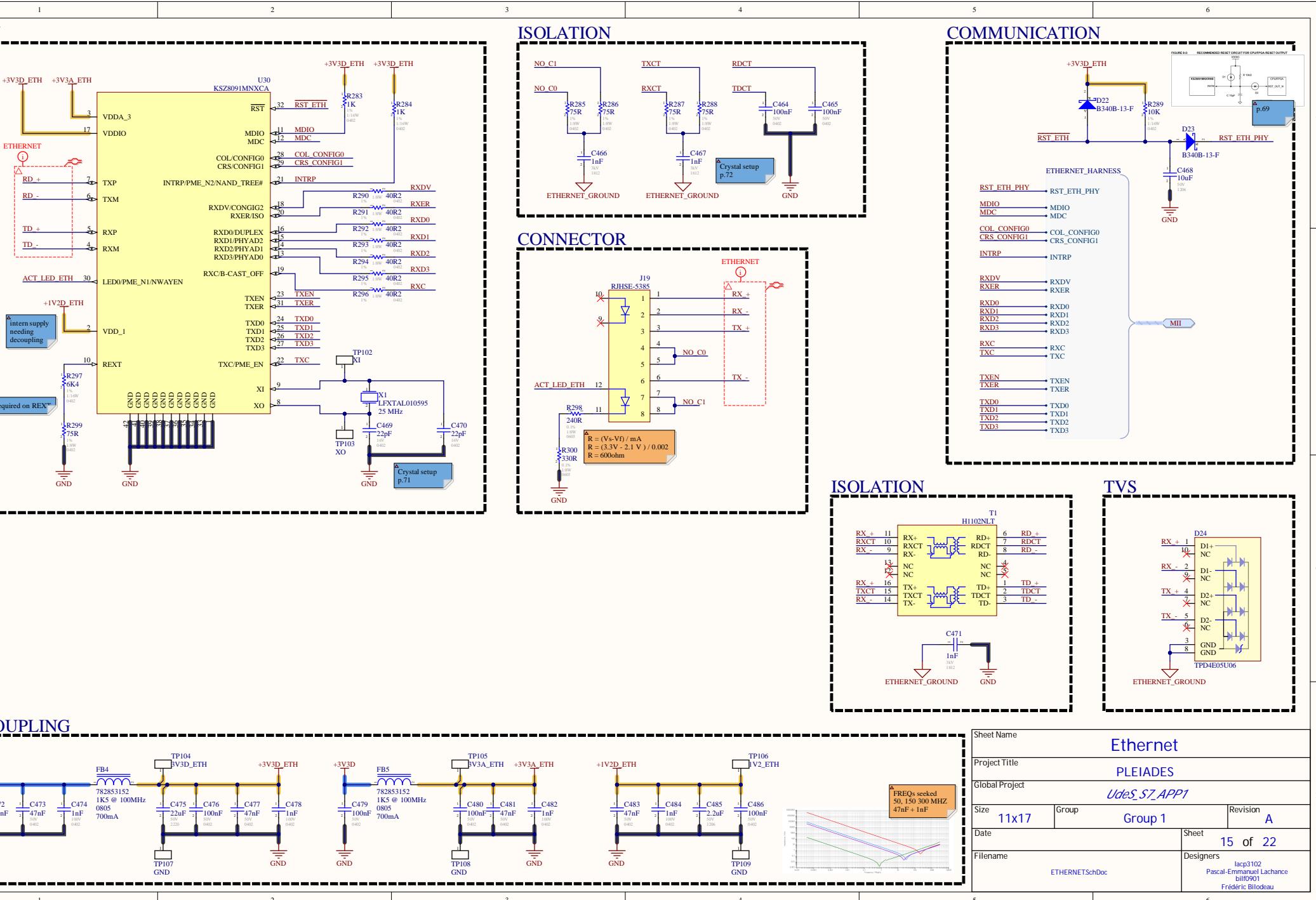
DEBUG LEDS

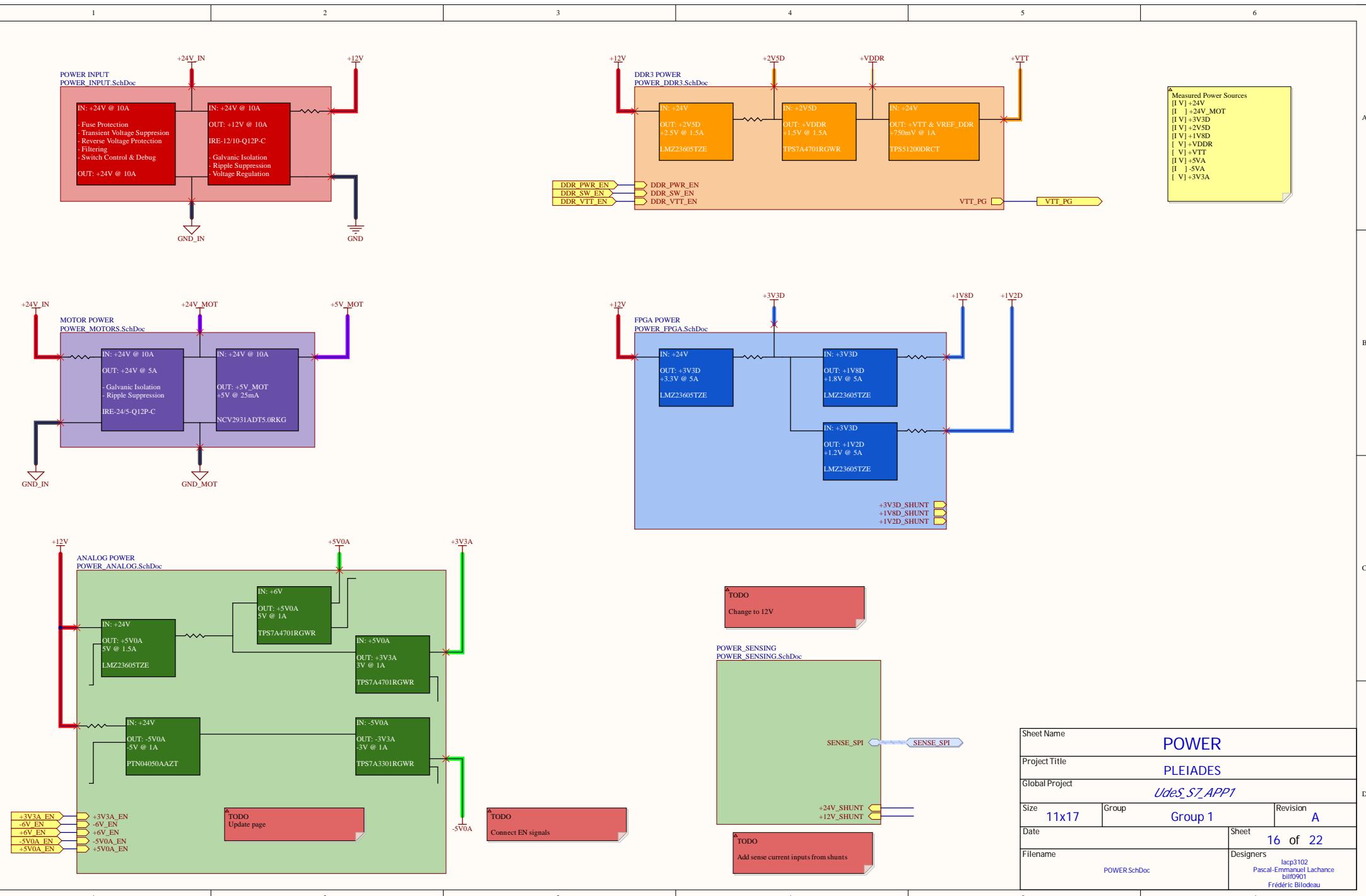


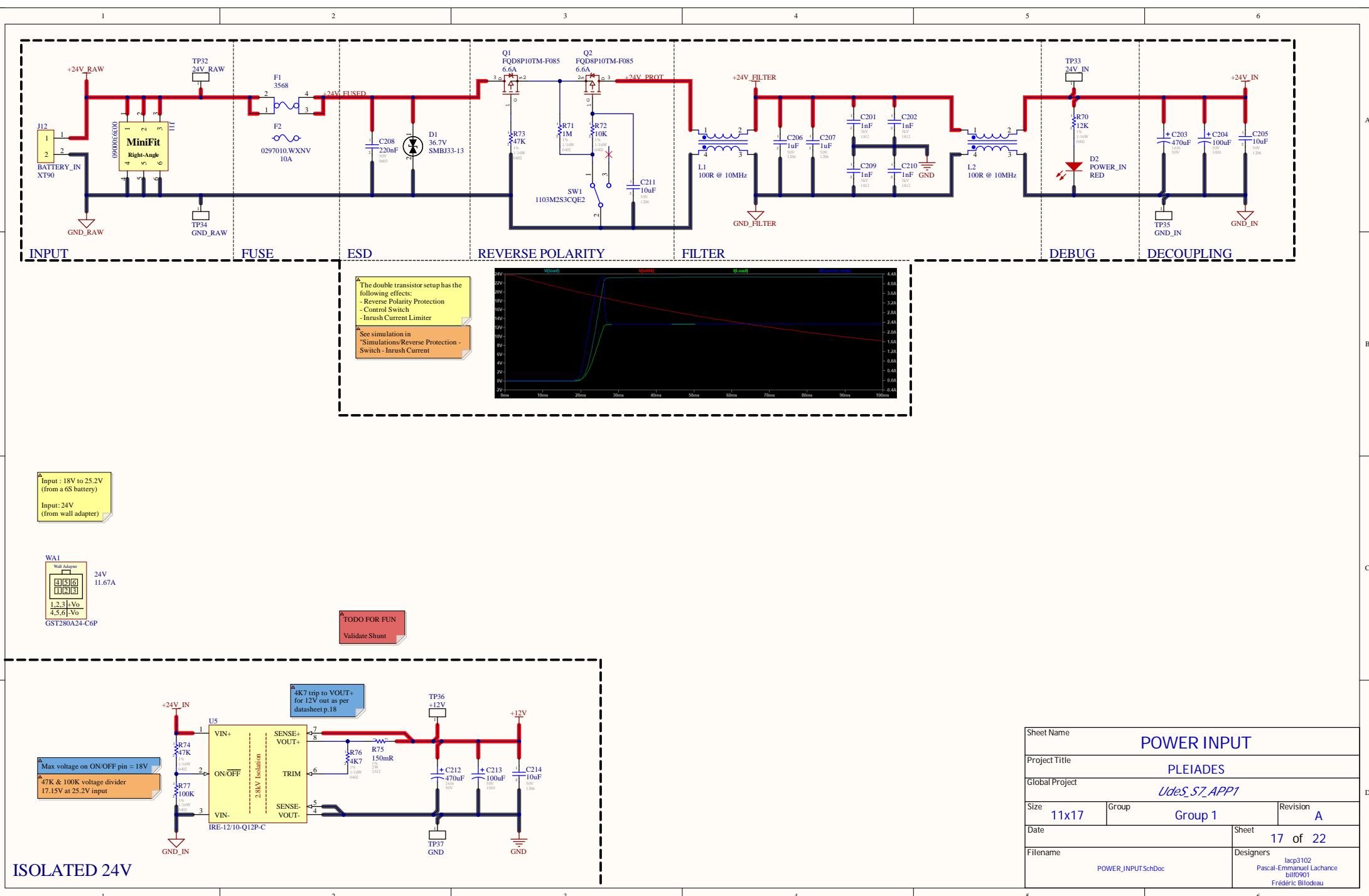
MECHANICAL			
Project Title			
Global Project			
Size	11x17	Group	Group 1
Date		Sheet	13 of 22
Filename	USER_IO.SchDoc	Designers	Iacp3102 Pascal-Etienne Lachance bilf0901 Frédéric Bilodeau

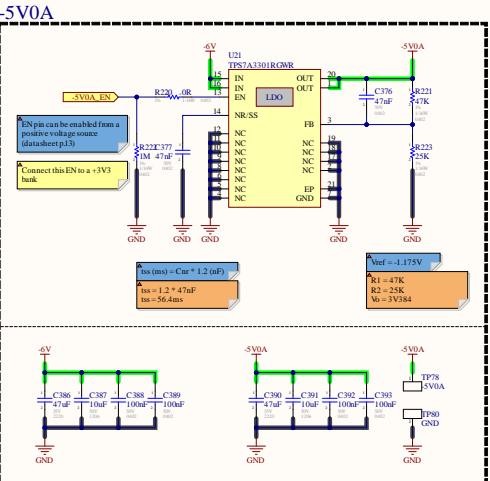
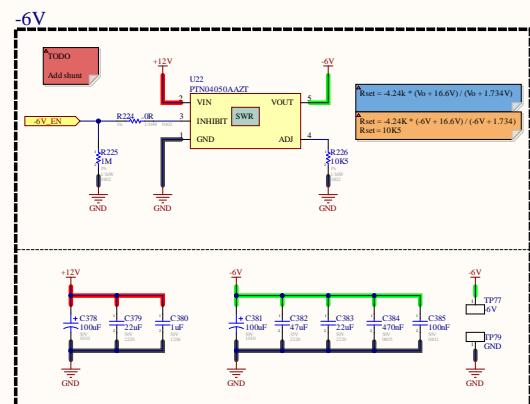
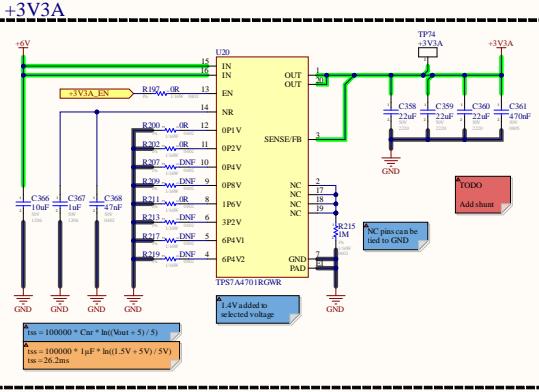
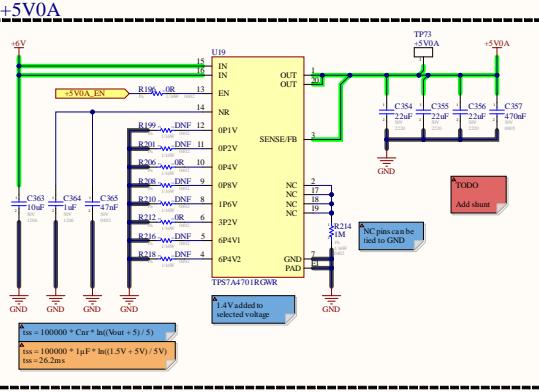
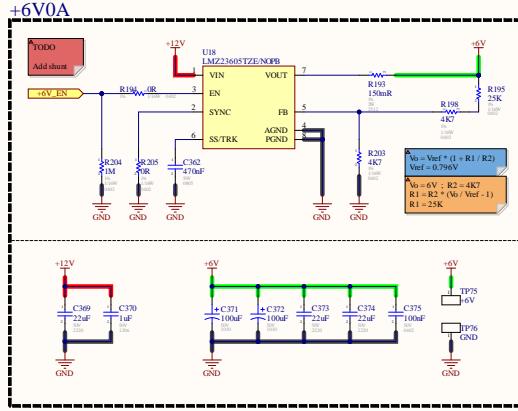
1 2 3 4 5 6











Sheet Name

POWER

PLEIADES

UdeS_S_AP

11x17	Group 1
Date	

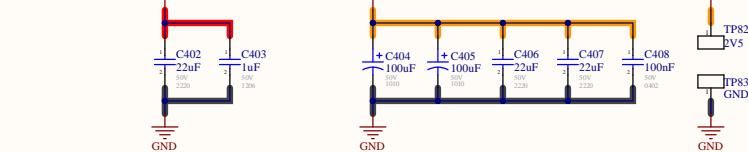
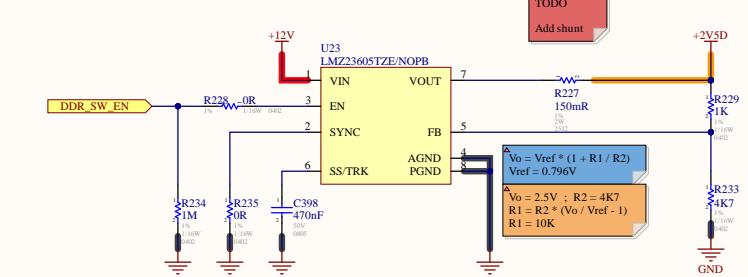
Filename

POWER_ANALOG.SchDoc

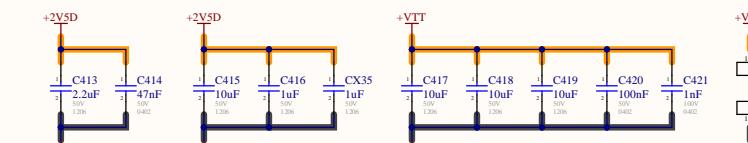
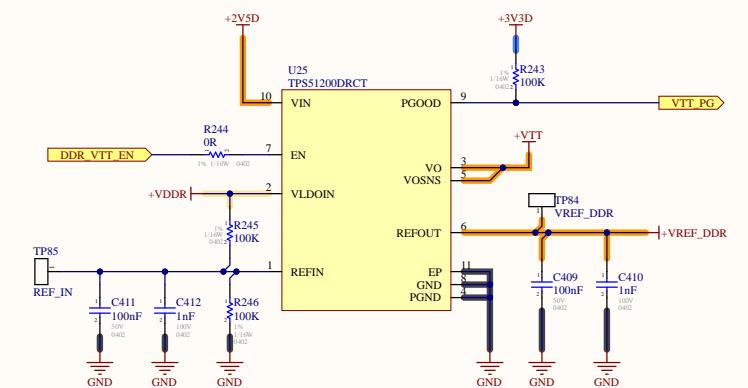
7

For more information about the study, please contact the study team at 1-800-258-4929 or visit www.cancer.gov.

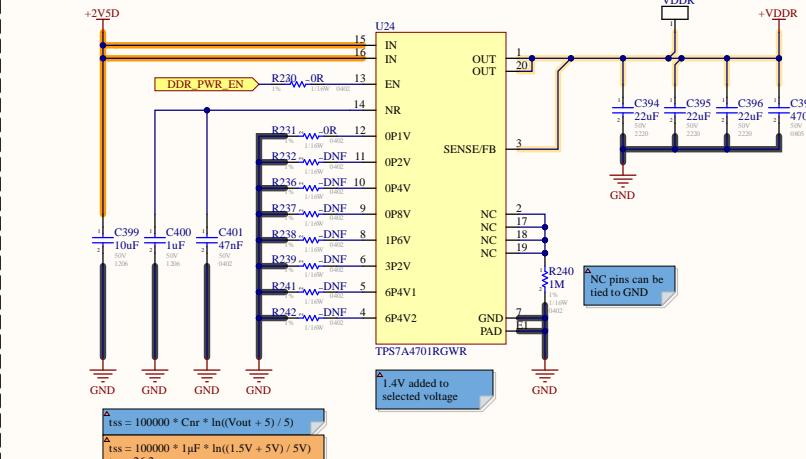
2.5V SWITCHING



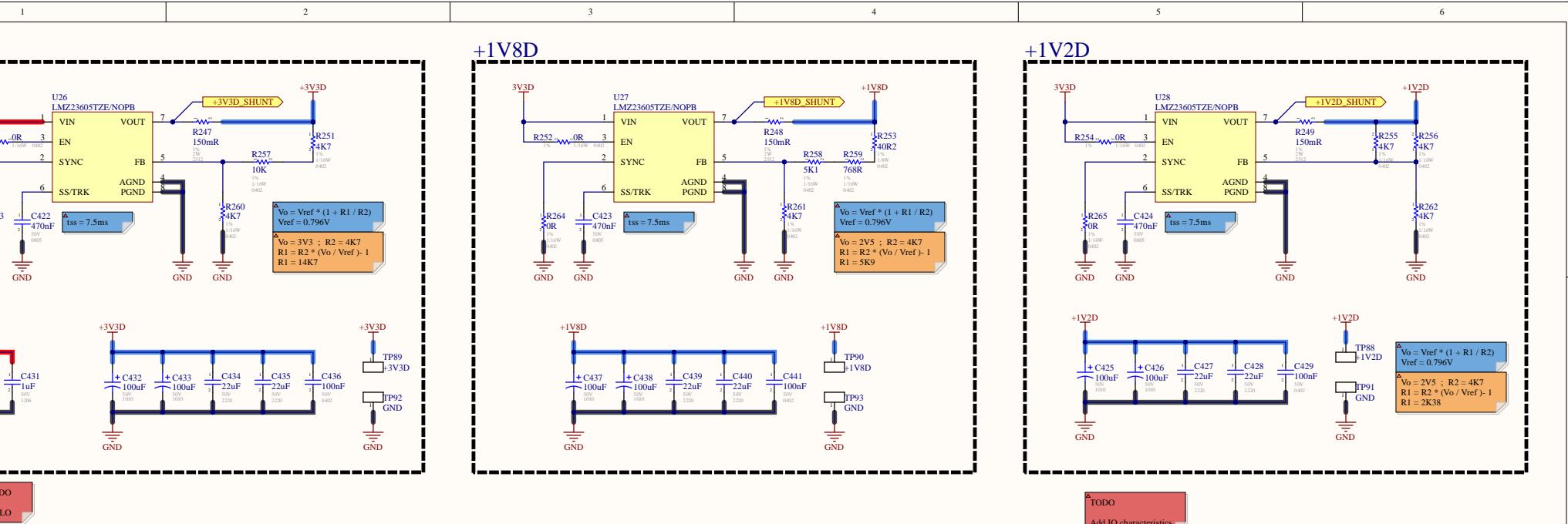
VTT



VDDR



Sheet Name			
Project Title			
Global Project			
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Date		Sheet	19 of 22
Filename	POWER_DDR3.SchDoc	Designers	Iacp3102 Pascal-Etienne Lachance billf0901 Frédéric Bilodeau



^A UG394 p.32
The Spartan-6 FPGA can be powered up and powered down in any sequence. Because the three FPGA supply inputs must be valid to release the POR and can be supplied in any order, there is no FPGA-specific voltage sequencing requirement.

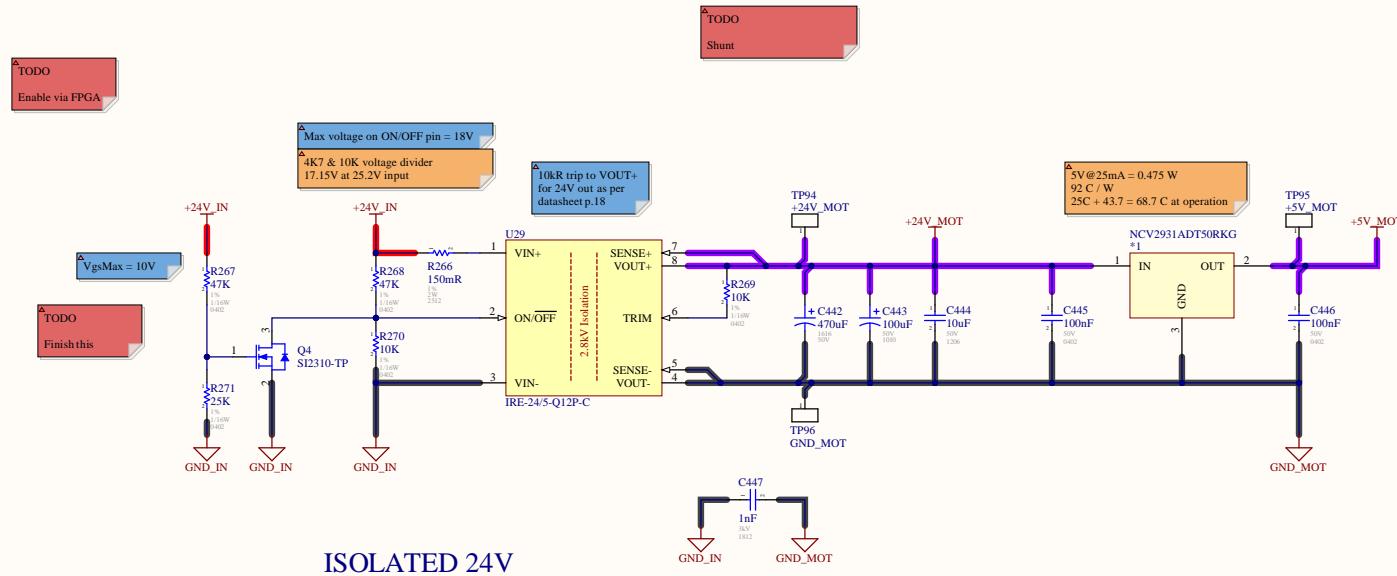
Table 6: Power Supply Ramp Time

Symbol	Description	Speed Grade	Ramp Time	Units
V _{CCINTR}	Internal supply voltage ramp time	-3, -3N, -2	0.20 to 50.0	ms
		-1L	0.20 to 40.0	ms
V _{CCO2} ⁽¹⁾	Output drivers bank 2 supply voltage ramp time	All	0.20 to 50.0	ms
V _{CCHAUX}	Auxiliary supply voltage ramp time	All	0.20 to 50.0	ms

^A DS162 p.7

V_{CCINT}: 3A @ 1V2D
V_{CCAUX}: 250mA @ 3V3D
V_{CCIO}: 6x 100mA @ 3V3D
6.405W

Sheet Name		POWER				
Project Title		PLEIADES				
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Sheet Name	POWER		
Project Title	PLEIADES		
Global Project	UdeS SZ APP1		
Size	11x17	Group	Group 1
Date		Sheet	21 of 22
Filename	POWER_MOTORS.SchDoc	Designers	Iacp3102 Pascal-Etienne Lachance bill0901 Frédéric Bilodeau

