

FlatSat 2.0 Hardware project:

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- Reviewers: Yan C. de Azeredo
- Support: Anderson W. Spengler, Gabriel M. Marcelino and André M. P. Mattos

Project repository: <https://github.com/spacelab-ufsc/flatsat-platform2>

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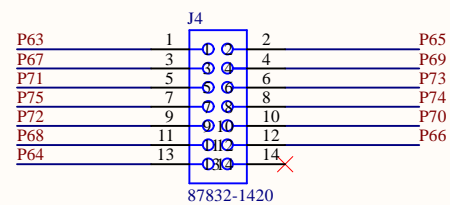
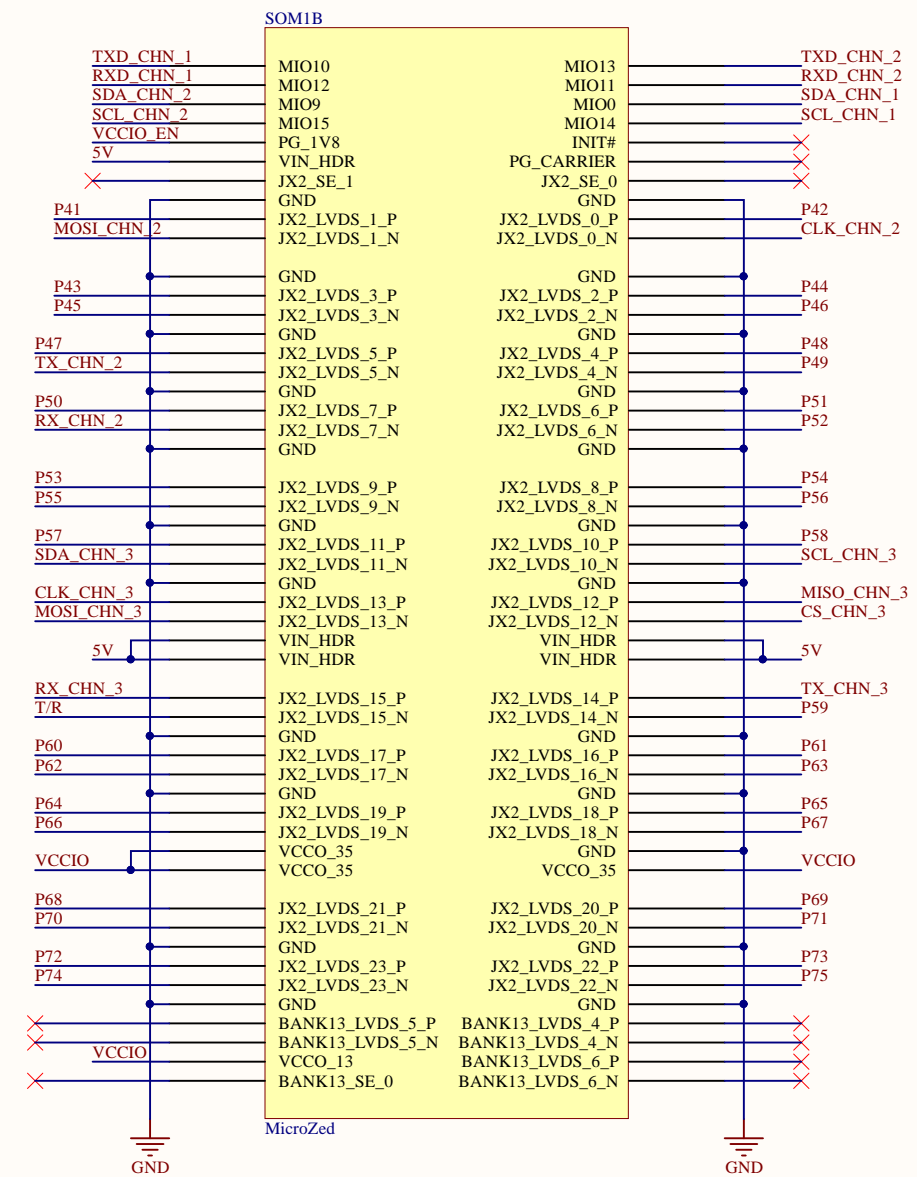
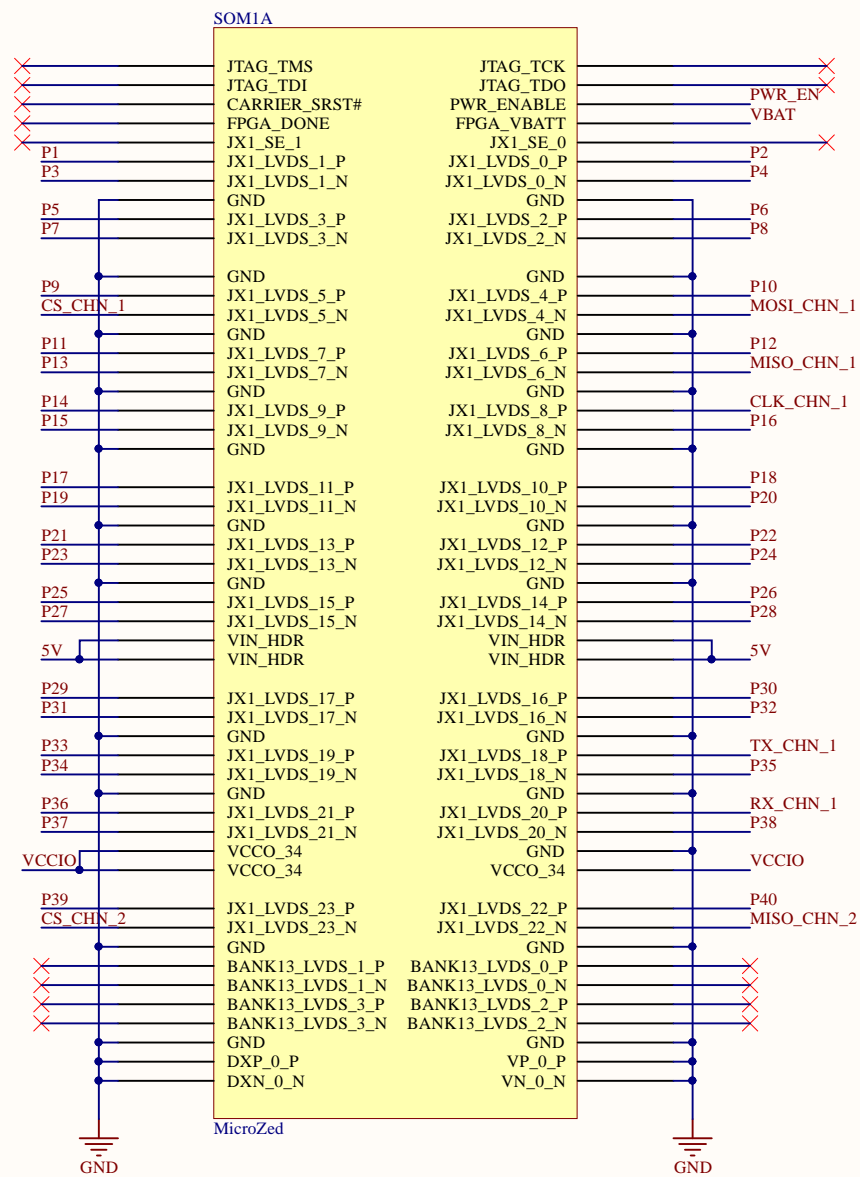
Project Contributions

Rev	Description	Date	Author
0.1	Initial release	27-05-2021	João C. E. Barcellos

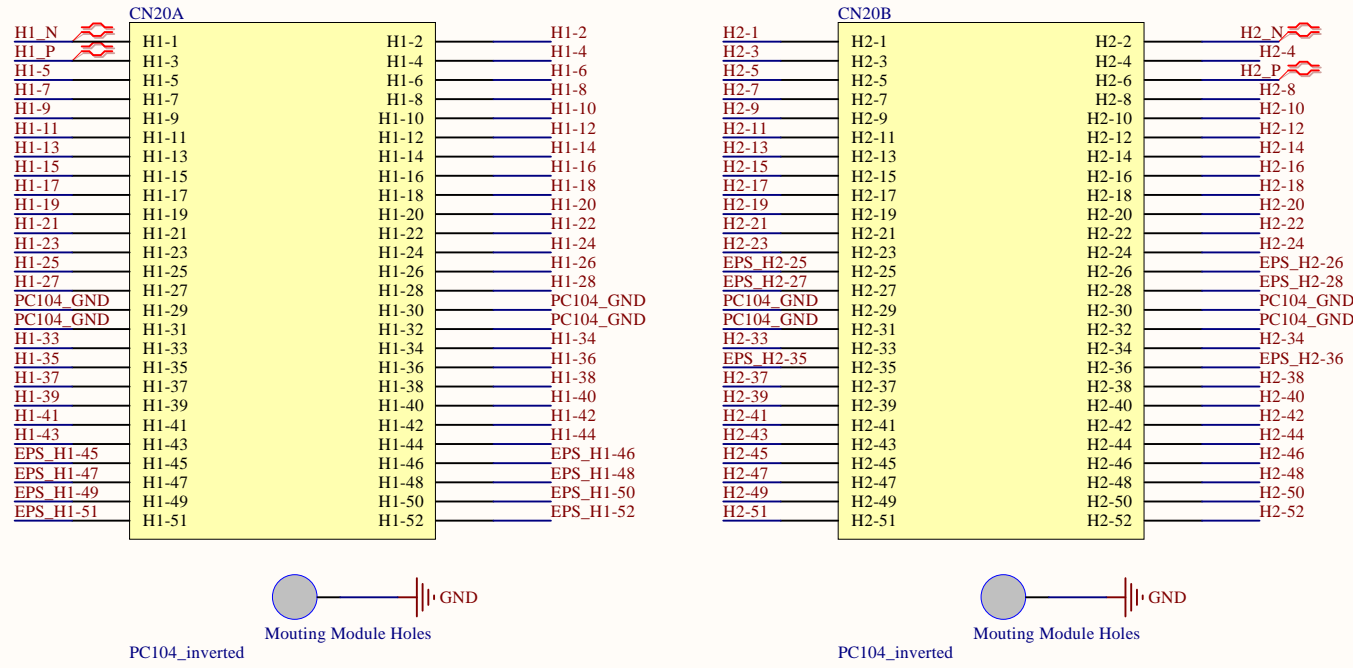
Revision History

Block Diagram

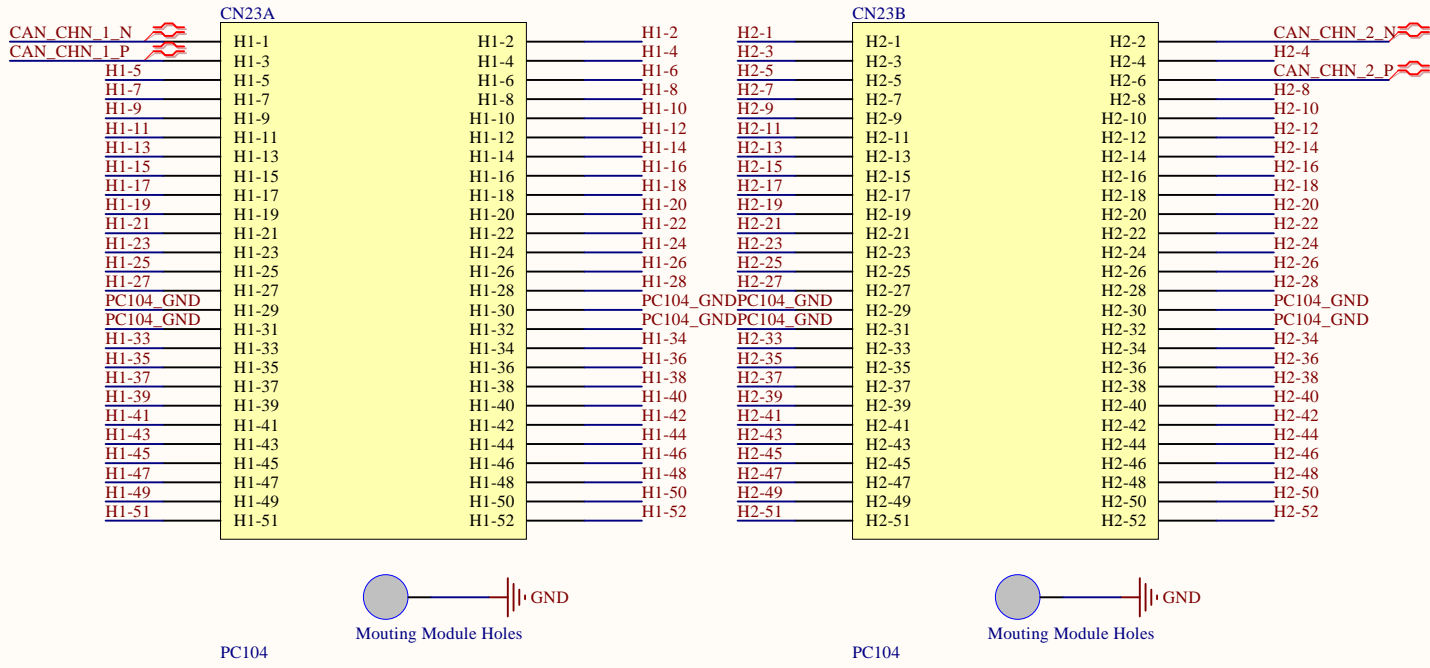
Power Architecture



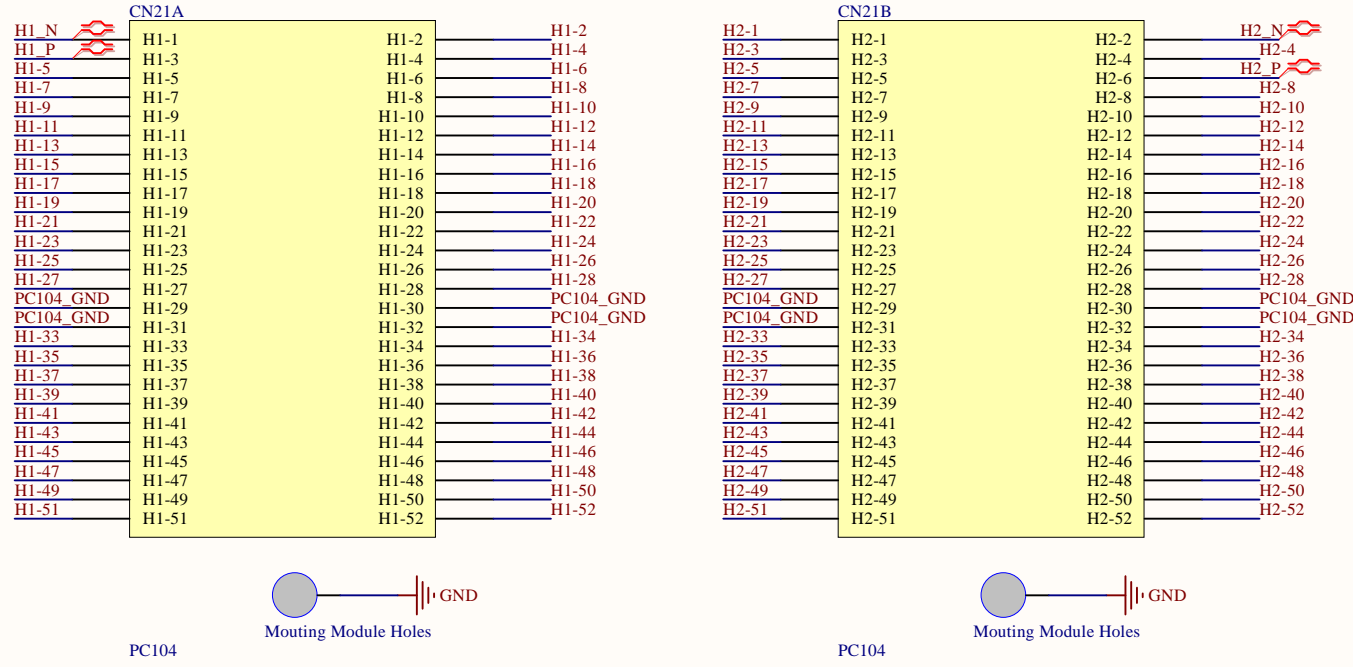
PC104 slot N°1 (EPS)



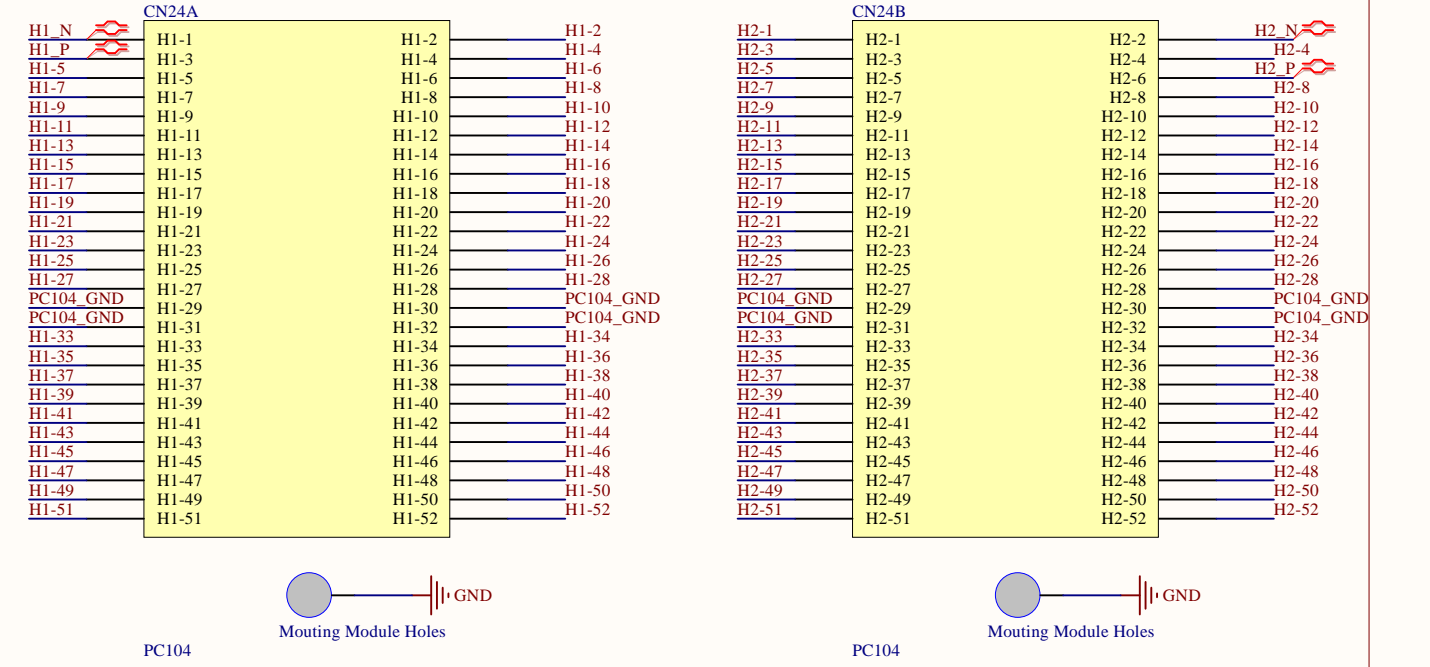
PC104 slot N°2 (CAN bus tests)



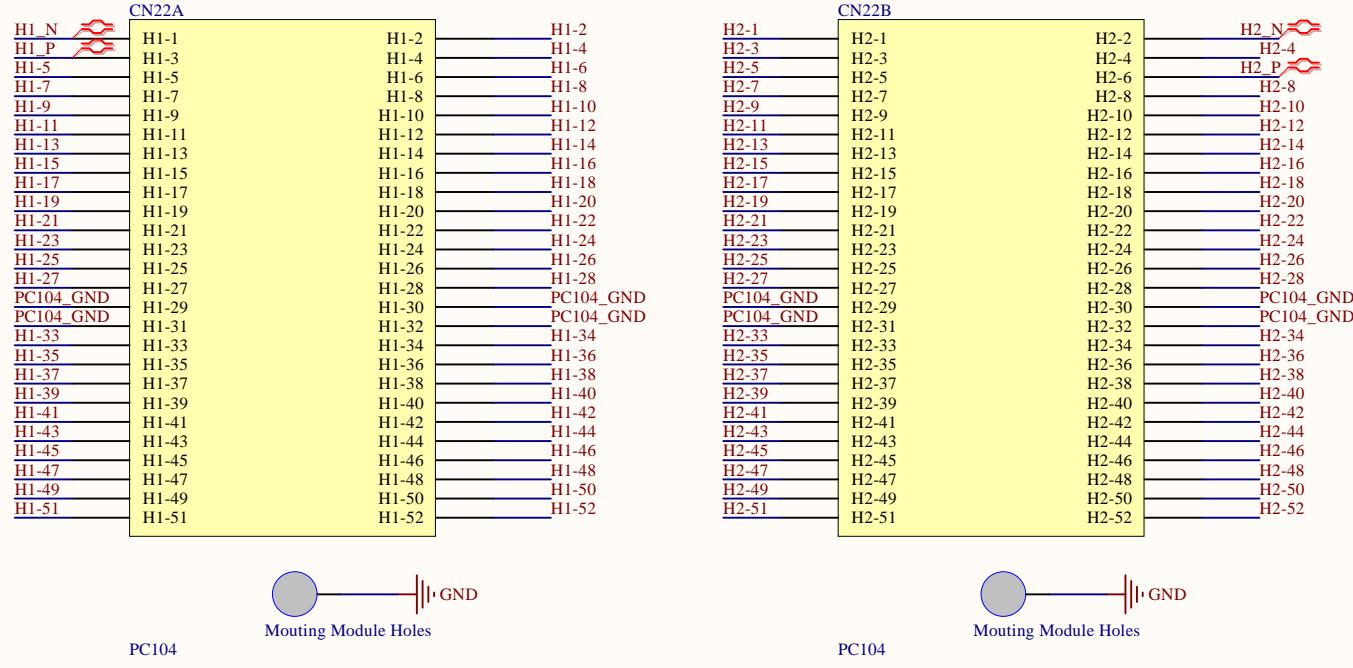
PC104 slot N°3



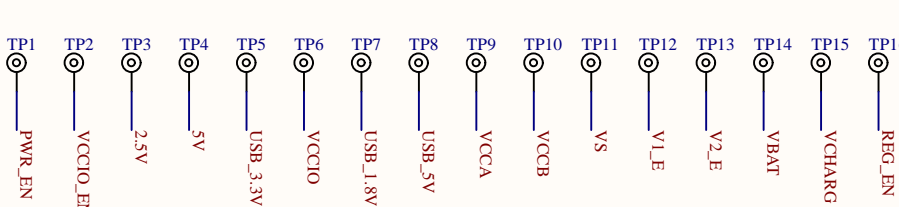
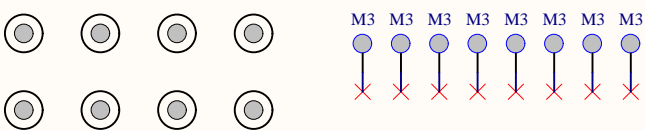
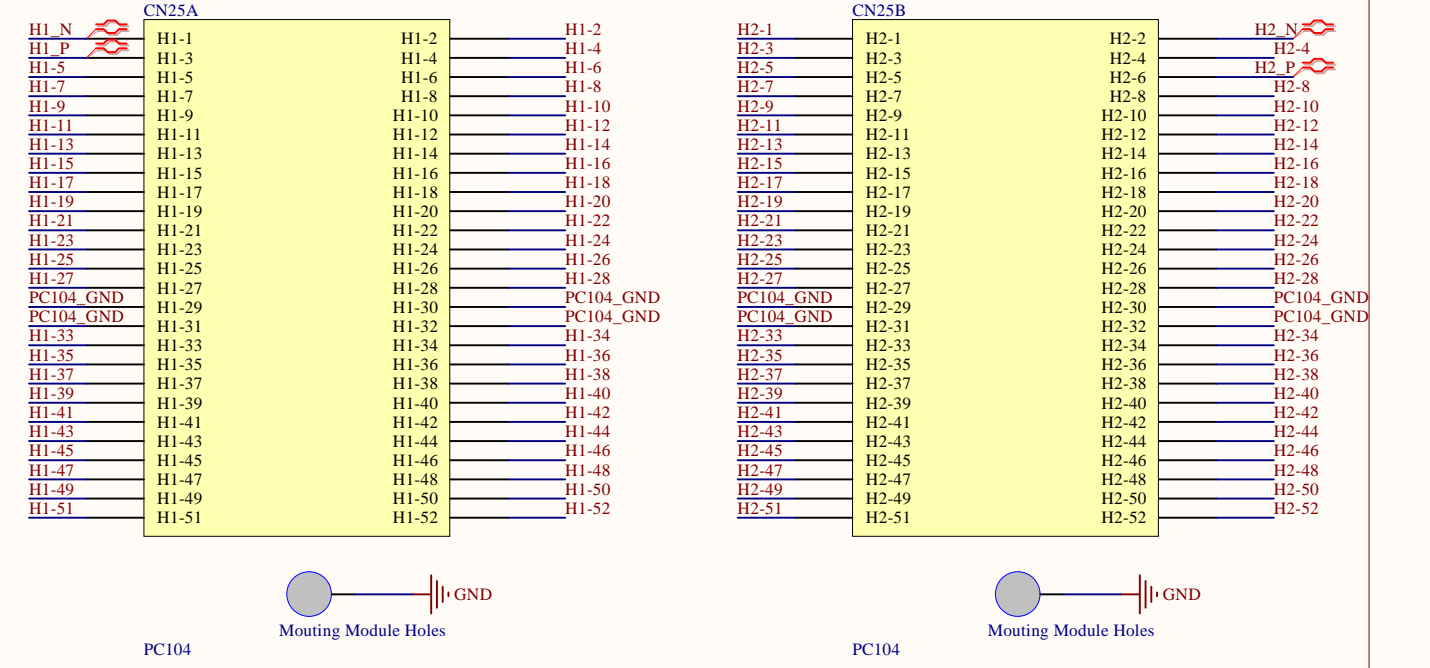
PC104 slot N°4

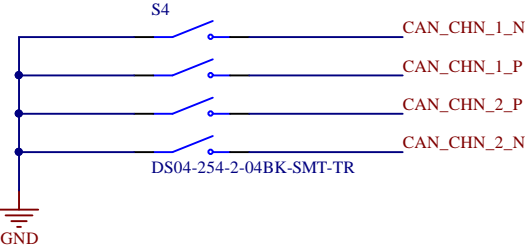
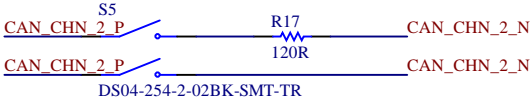
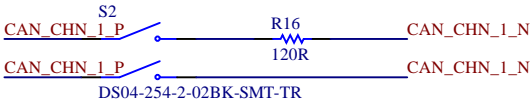
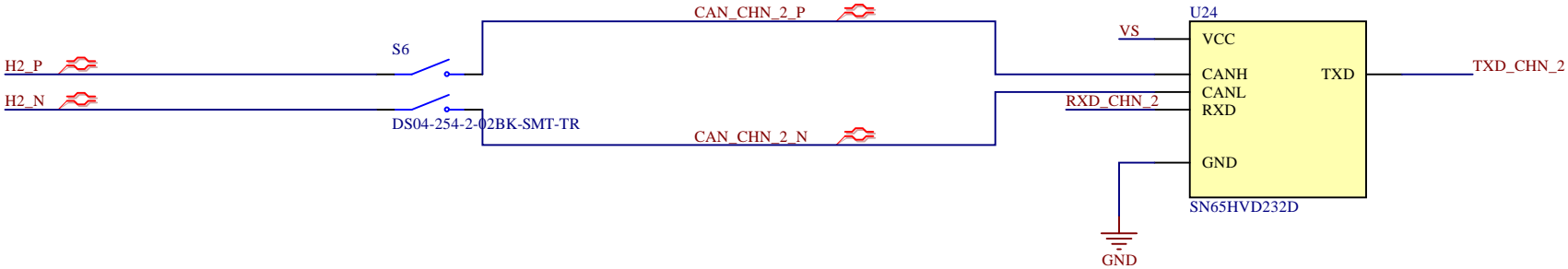
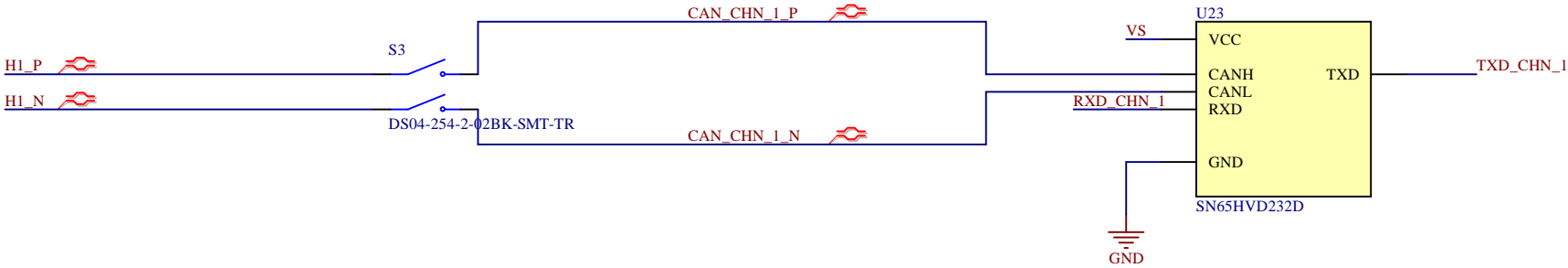


PC104 slot N°5

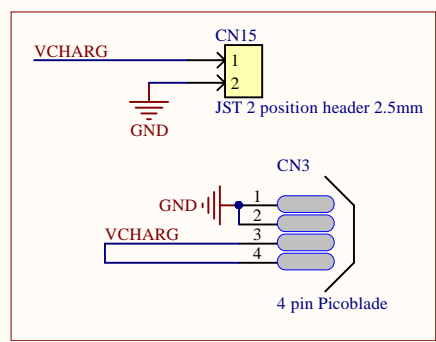


PC104 slot N°1

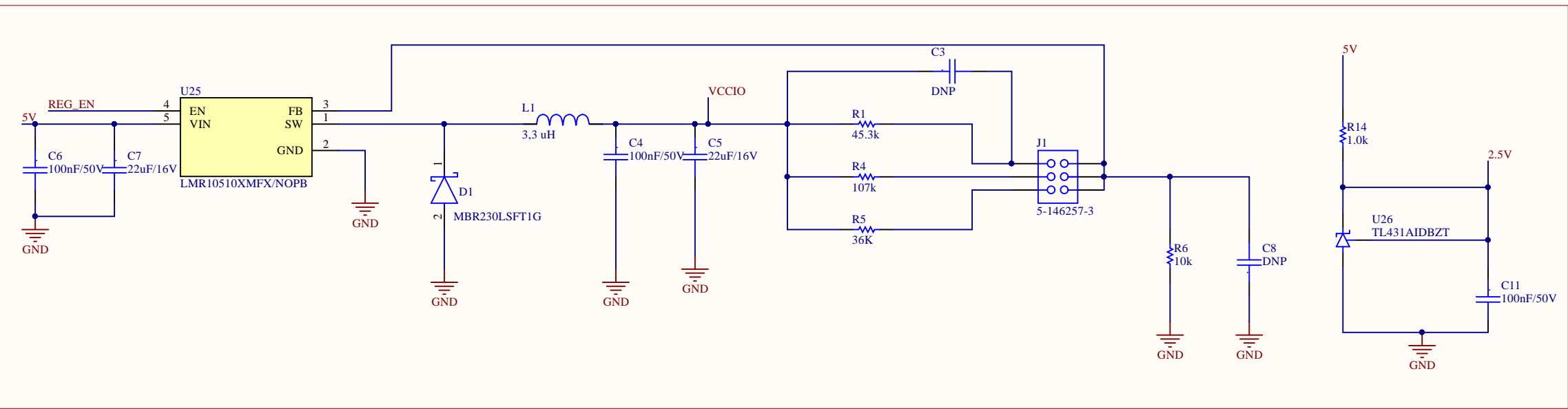




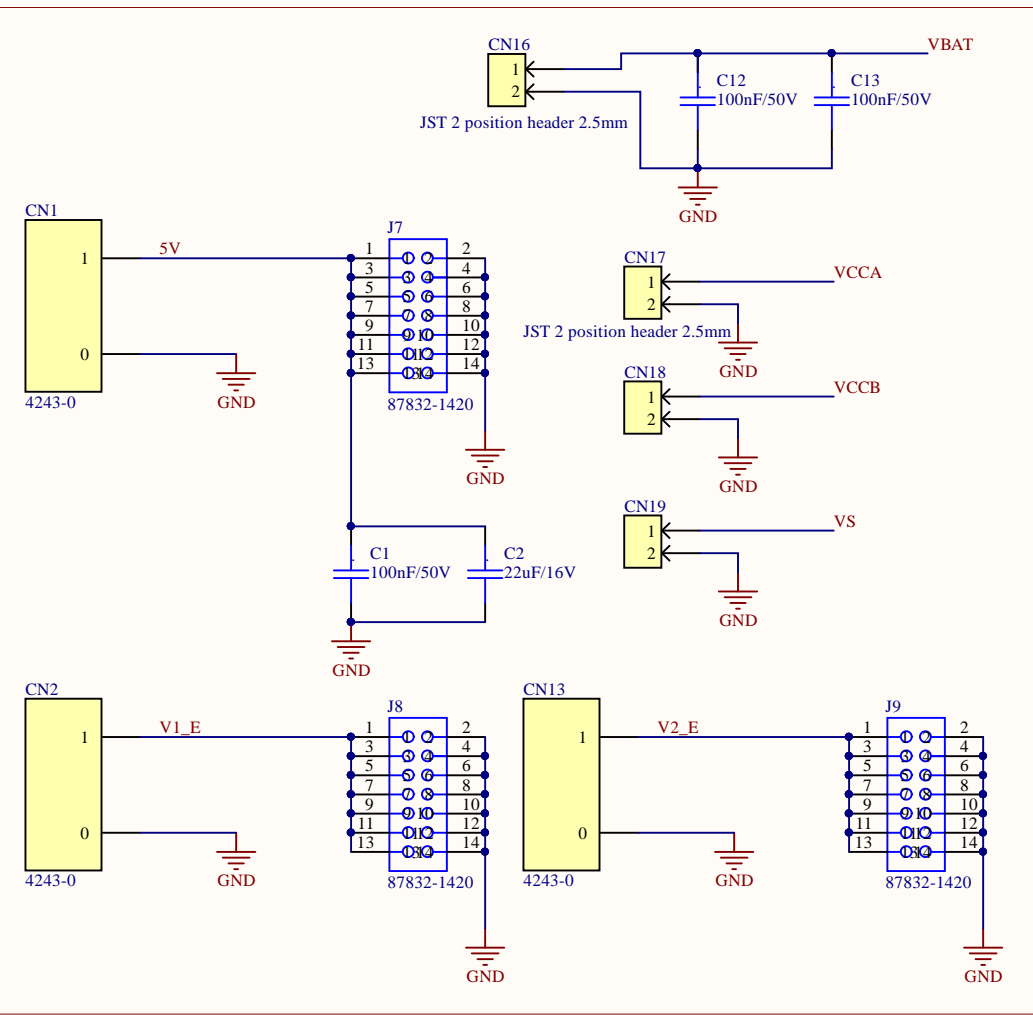
Batteries charge circuit



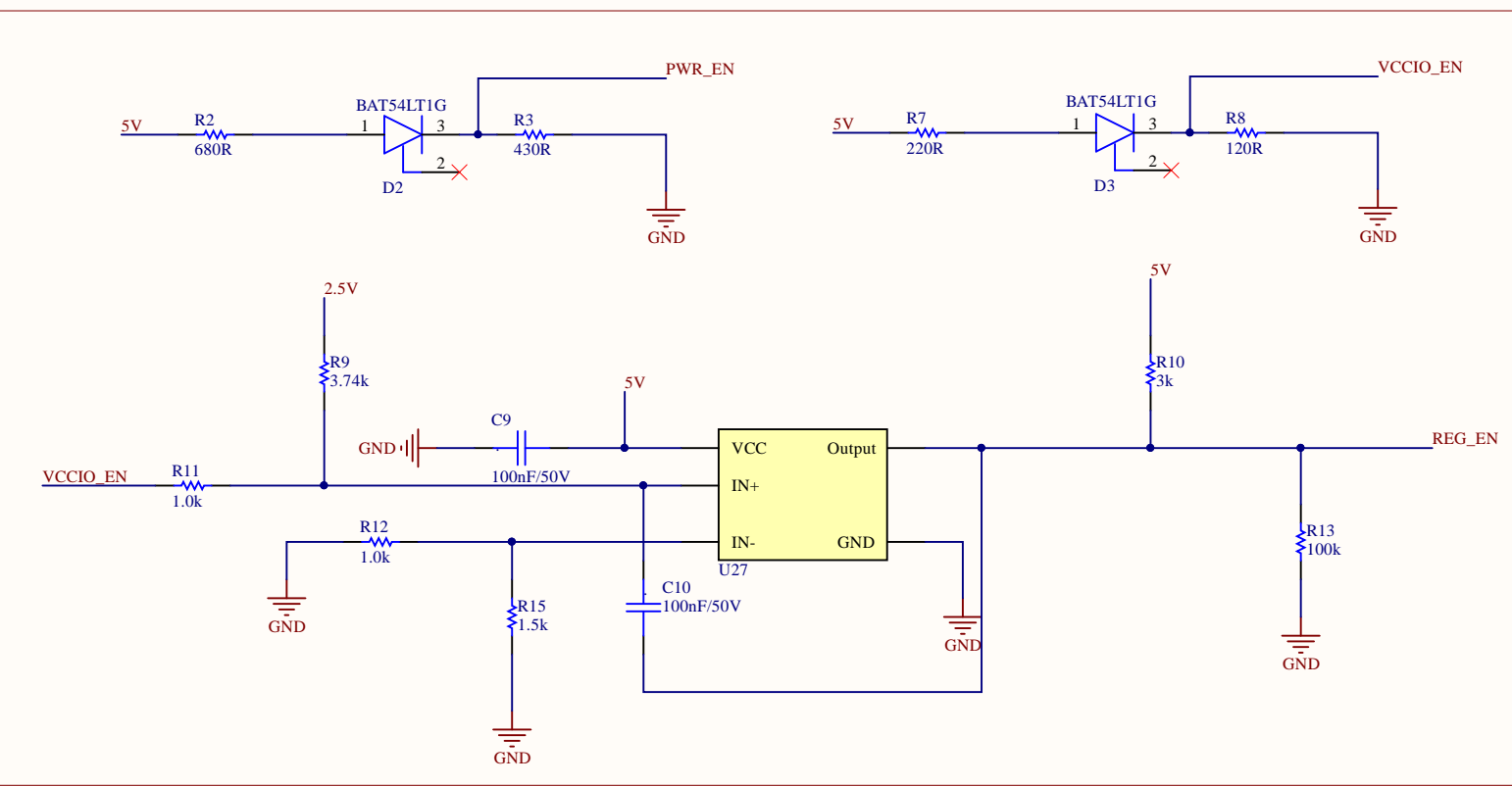
Reference signals

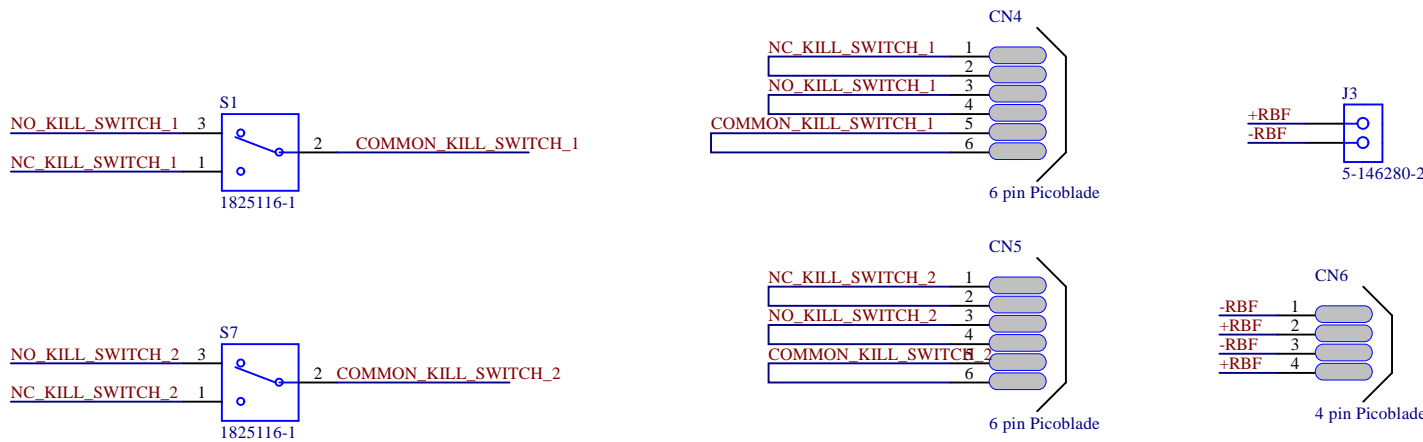


External voltage sources



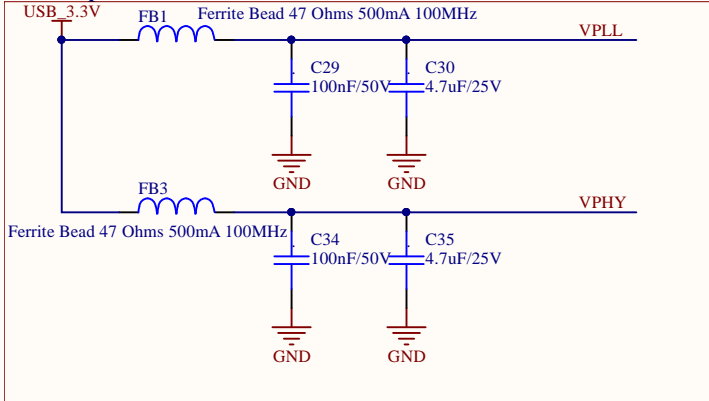
Enables



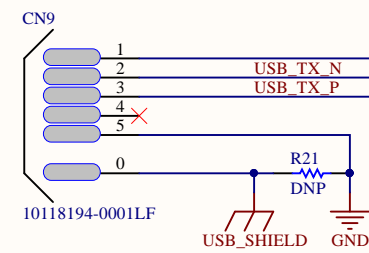
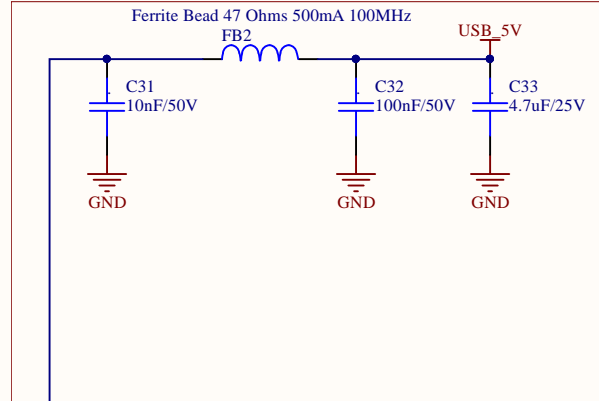


RBF	Switch(NC)	Switch(NO)	MOSFET	EPS POWER
1	X	X	OPEN	Cut-off
0	1	0	CLOSE	ON
0	0	1	OPEN	Cut-off (launch moment)

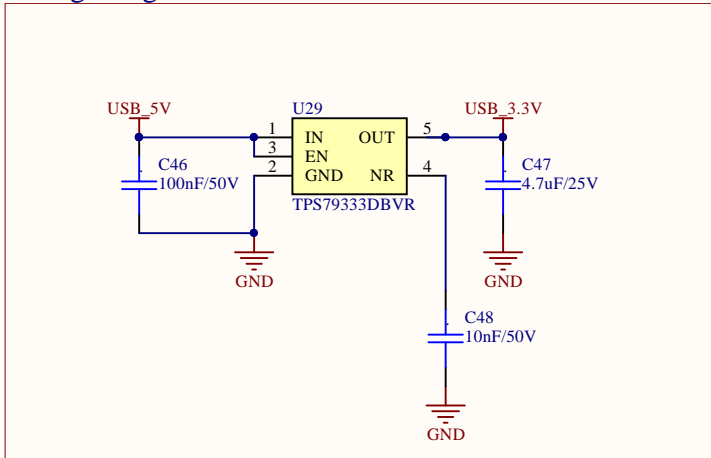
Low pass LC filters for VPLL and VPHY



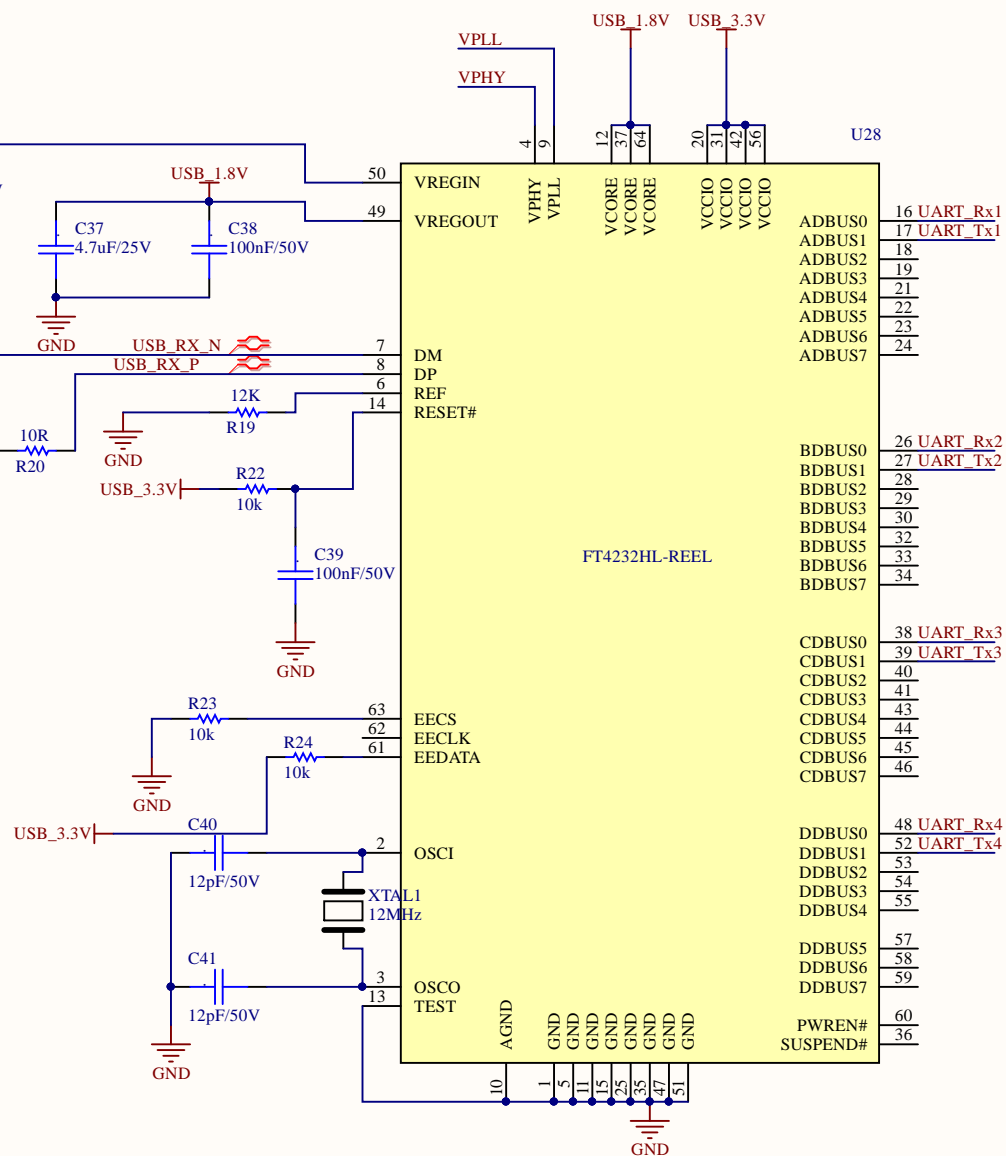
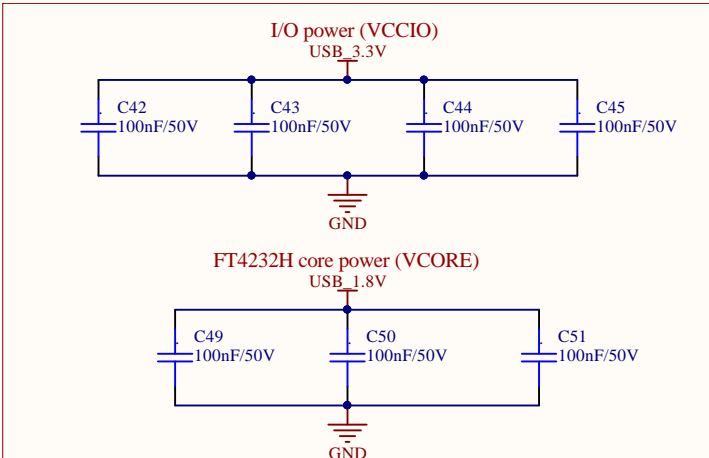
USB VBUS Filter



Voltage Regulator



Decoupling capacitors



Debug interfaces

