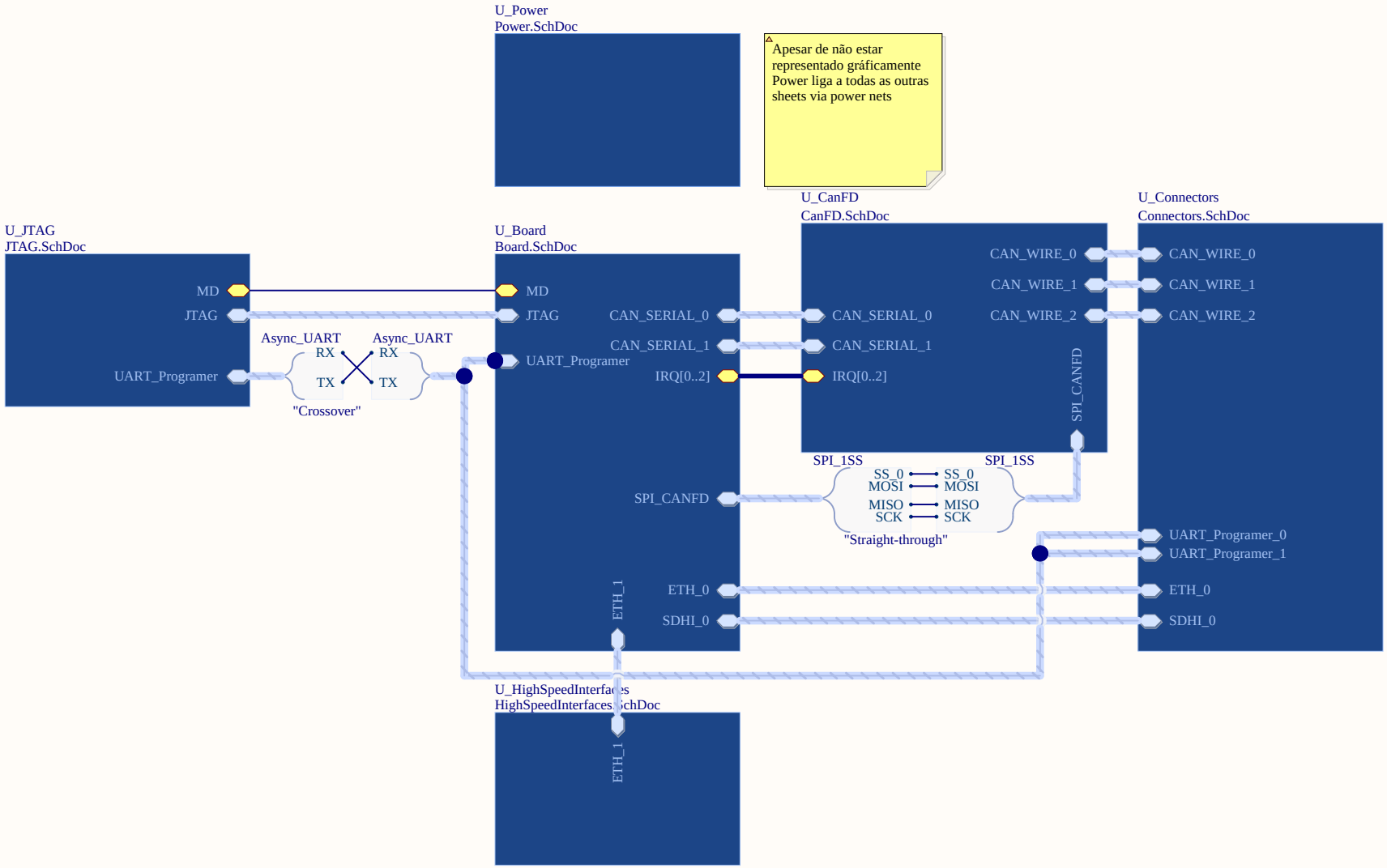

Title: *Top Level Sch Abstraction*		**Author:** João Vieira	**Approved:** Diogo Gomes
Size: A4	**Prj:** Autonomous Control Unit	**Checked By:** G. Candido, F. Chen, P. Ferreira, B. Vicente	LART
Date: 24/02/2024	19:24:50 Sheet 1 of 7		*Morro do lena*
Git Hash: dbc13111	1.4.2	*Variant:* [No Variations] *SW Version:* 24.1.2.44	*Alto Do Vieiro*
Description: An Abstract Representation of the wiring between schematics			*APT 4163, Building D*

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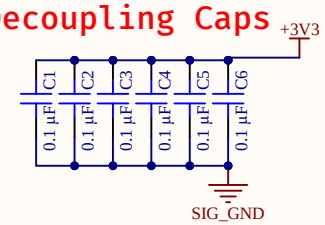
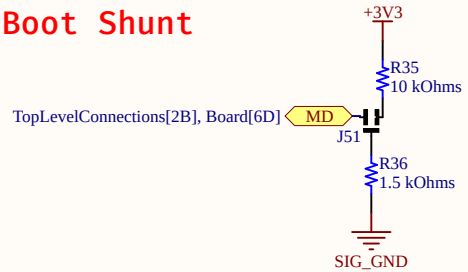
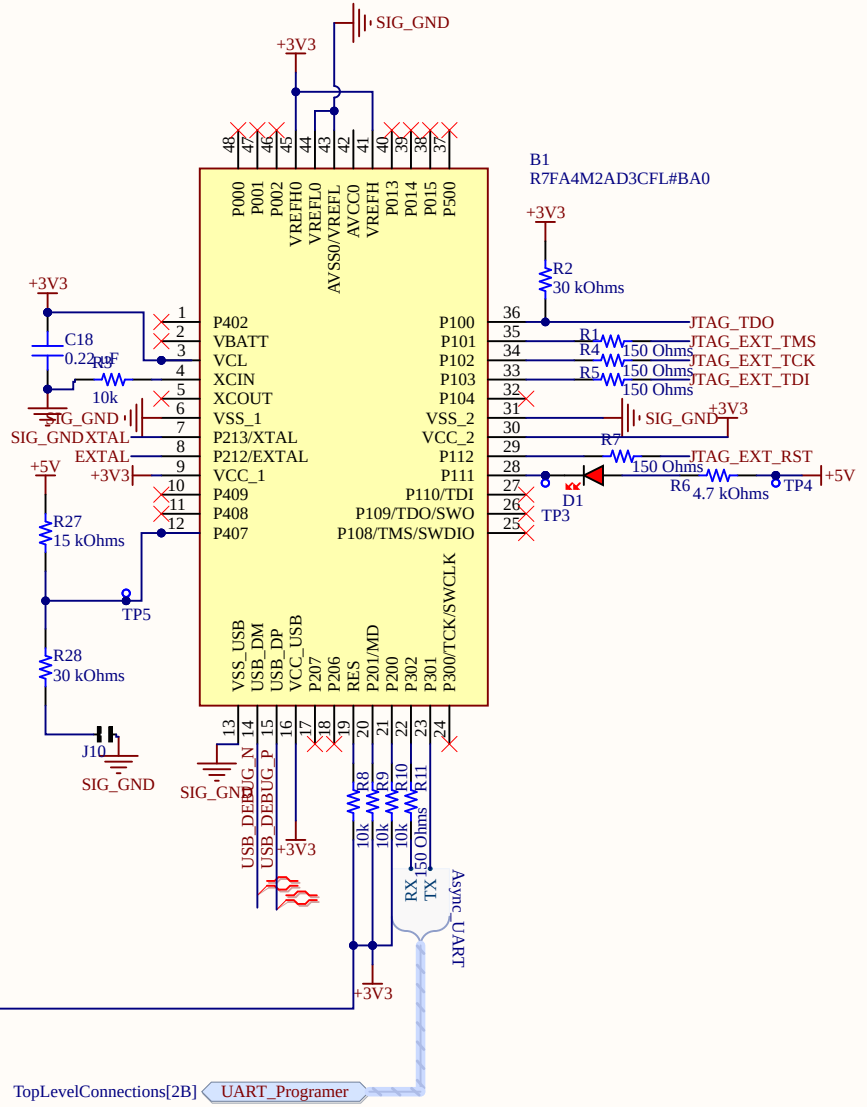
Decoupling Caps



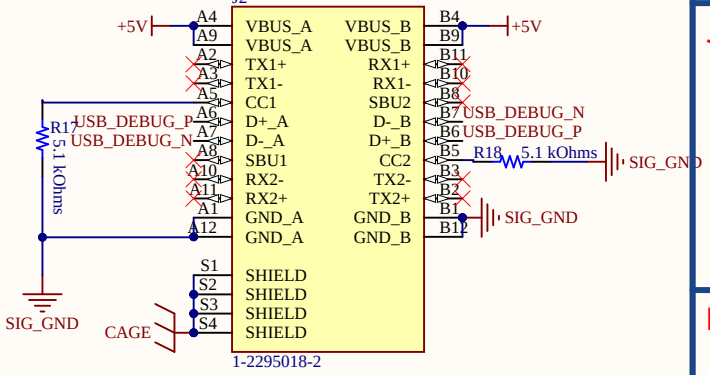
Boot Shunt



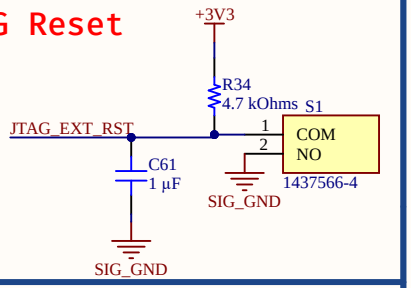
OnBoard Debugger MCU



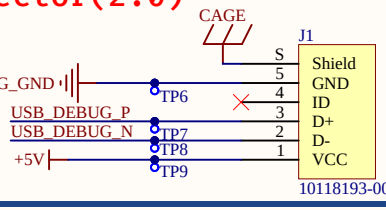
USB C Connector(2.0)



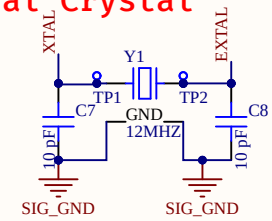
JTAG Reset



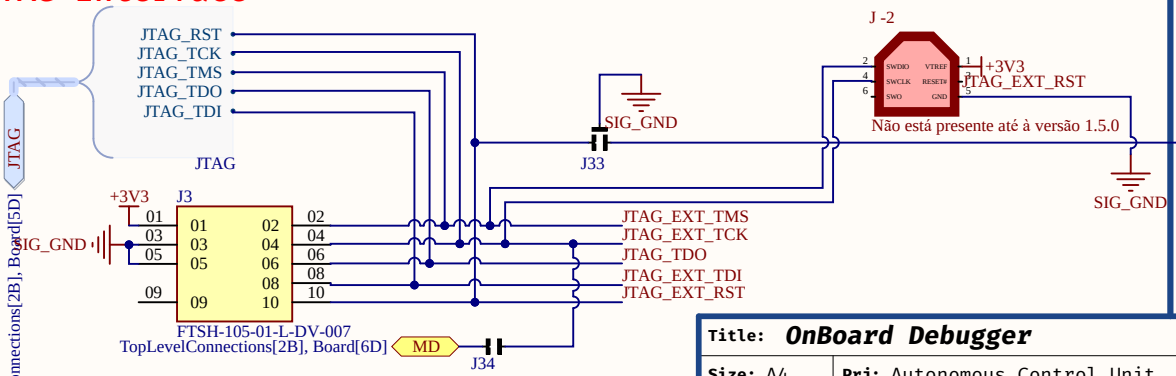
Micro USB Connector(2.0)



External Crystal



JTAG Interface



Title: *OnBoard Debugger*		**Author:** João Vieira	**Approved:** Diogo Gomes
Size: A4	**Prj:** Autonomous Control Unit	**Checked By:** G. Candido, F. Chen, P. Ferreira, B. Vicente	LART
Date: 24/02/2024 19:24:50	Sheet 2 of 7		Morro do Lena Alto Do Vieiro APT 4163, Building D
Git Hash: dbc13111	1.4.2	*Variant:* [No Variations] *SW Version:* 24.1.2.44	
Description: The Debugger Interface as a alternative to using an offboard programmer			

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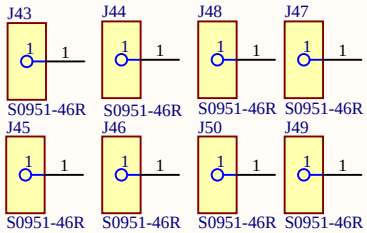
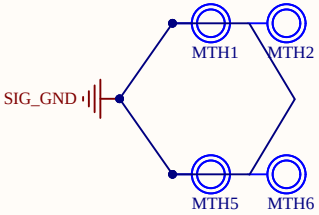
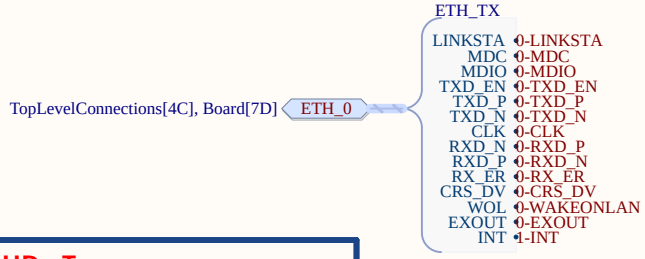
Mech. Hardware

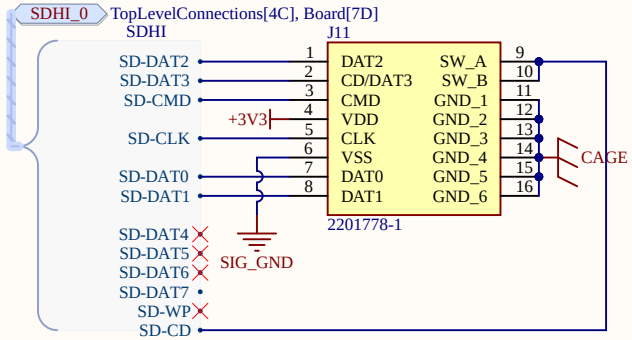




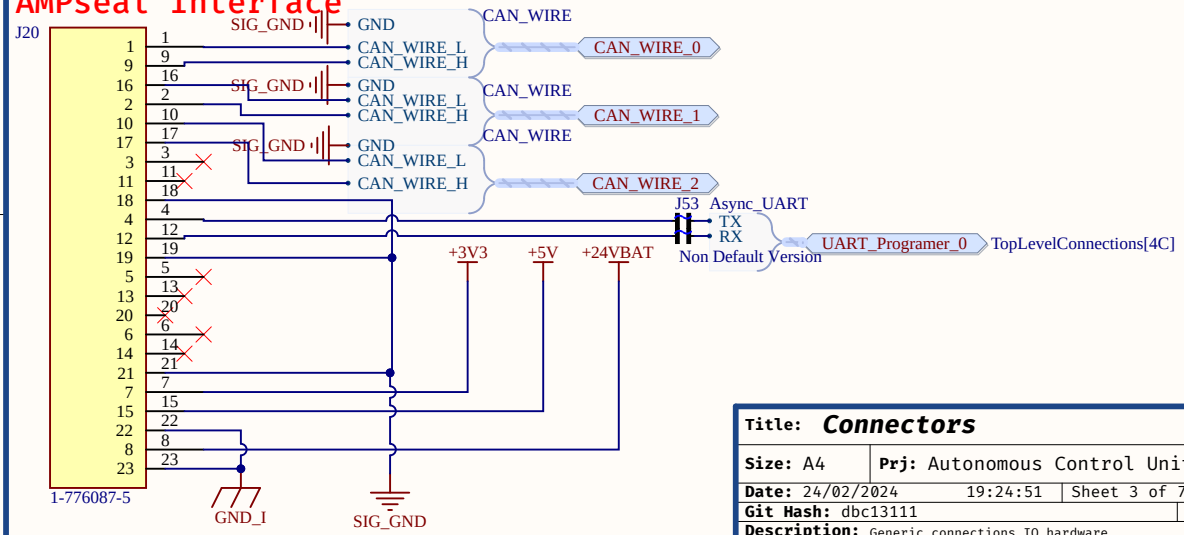
High Speed QFS

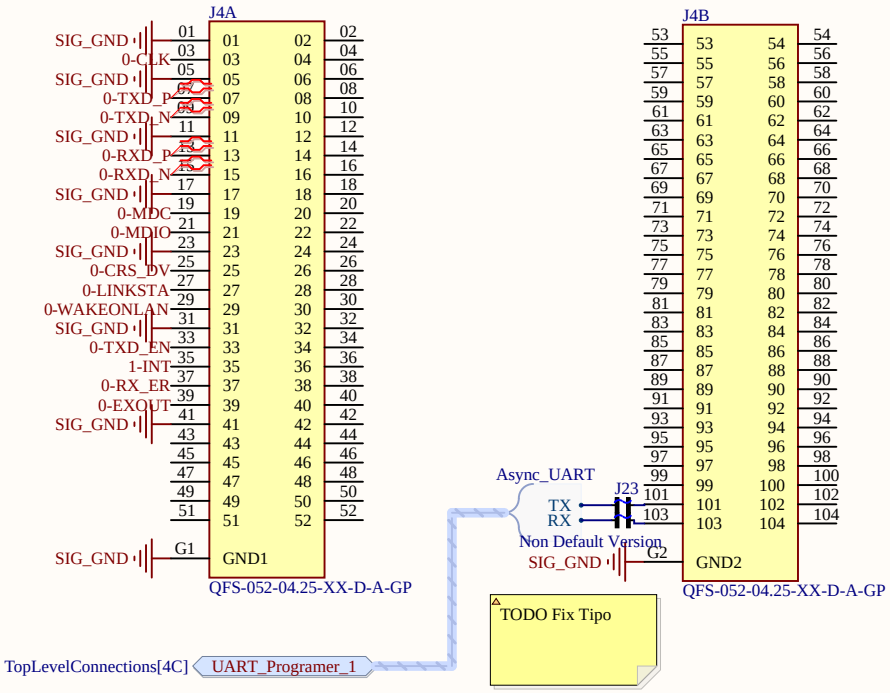


Micro-SD Card UHD-I



AMPseal Interface





Title: *Connectors*		**Author:** João Vieira	**Approved:** Diogo Gomes
Size: A4	**Prj:** Autonomous Control Unit	**Checked By:** G. Candido, F. Chen, P. Ferreira, B. Vicente	LART
Date: 24/02/2024 19:24:51	Sheet 3 of 7		Morro do Lena Alto Do Vieiro APT 4163, Building D
Git Hash: dbc13111	v1.4.2	*Variant:* [No Variations] *SW Version:* 24.1.2.44	
Description: Generic connections IO hardware			

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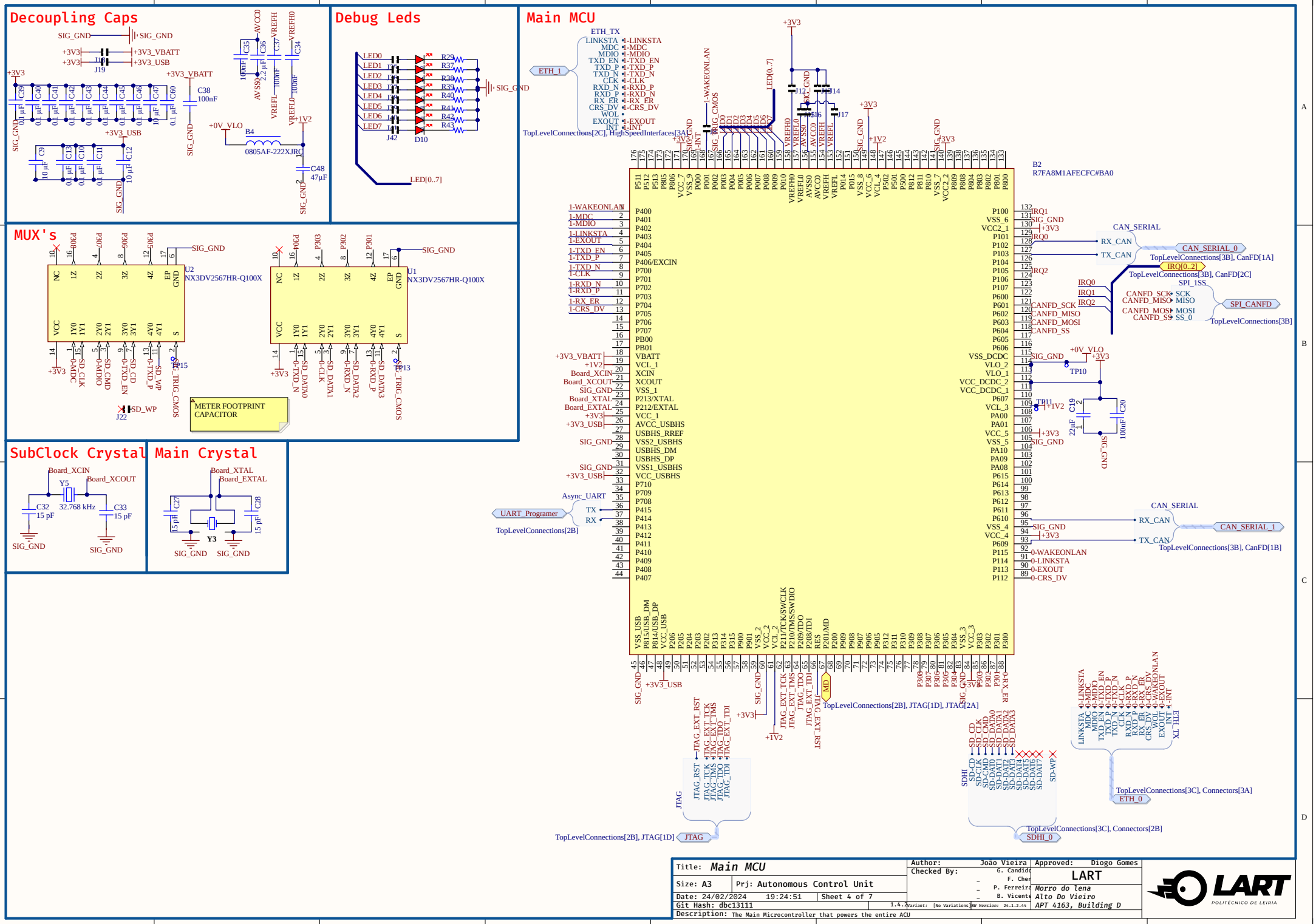

Title: Main MCU		Author: João Vieira	Approved: Diogo Gomes
Size: A3	Prj: Autonomous Control Unit	Checked By: G. Candido, F. Cher, P. Ferreira, B. Vicente	LART
Date: 24/02/2024 19:24:51	Sheet 4 of 7		Morro do lena Alto Do Vieiro APT 4163, Building D
Git Hash: dbc13111	1.4.4 Variant: [No Variations] SW Version: 24.1.2.44		
Description: The Main Microcontroller that powers the entire ACU			

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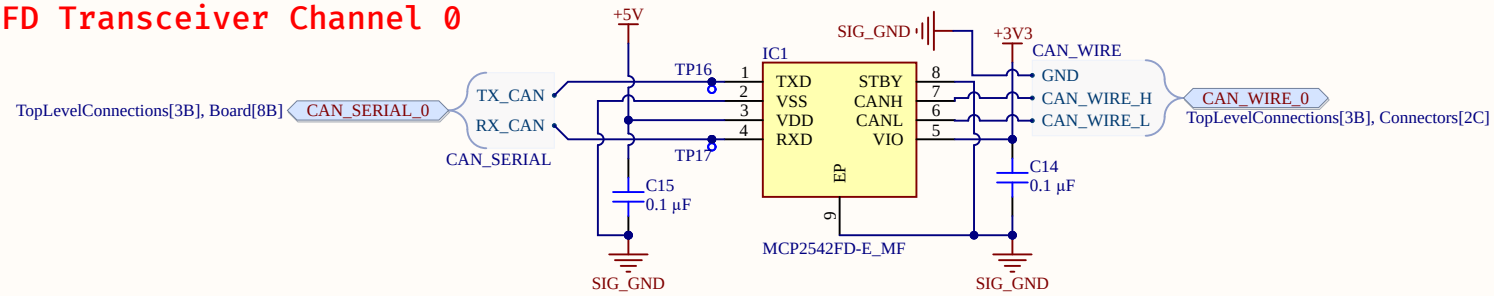
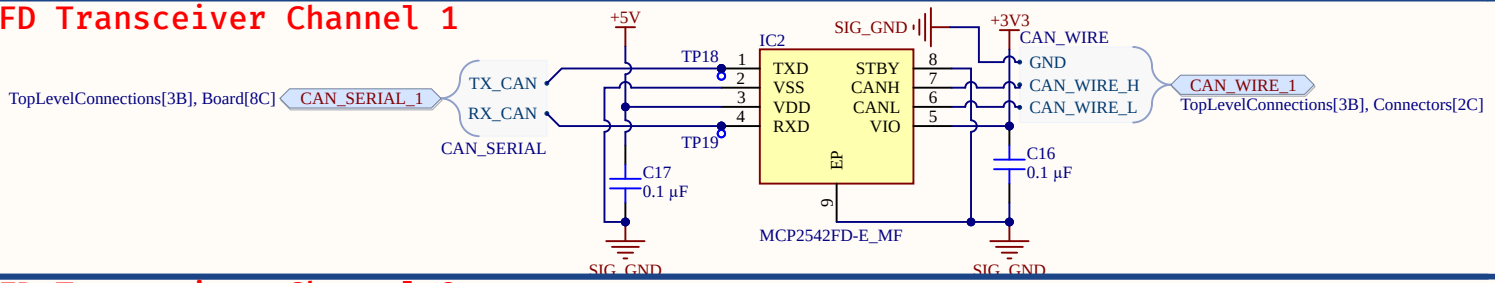
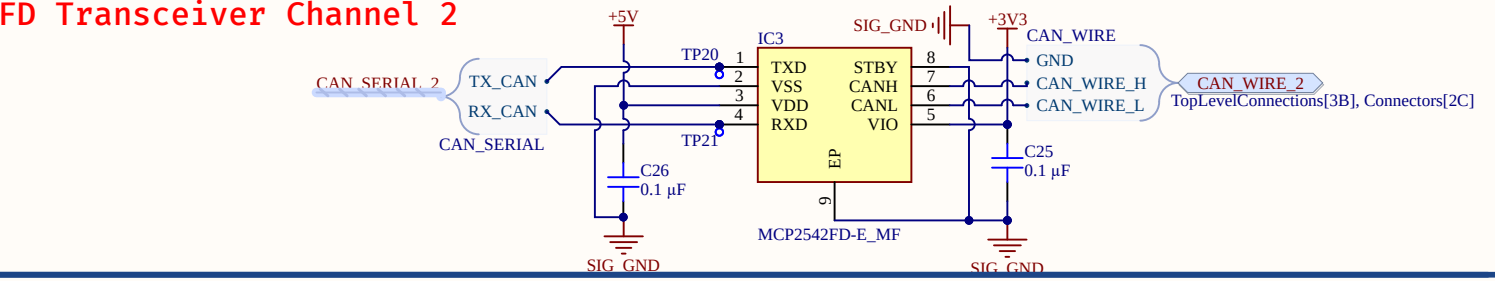
FD Transceiver Channel 0



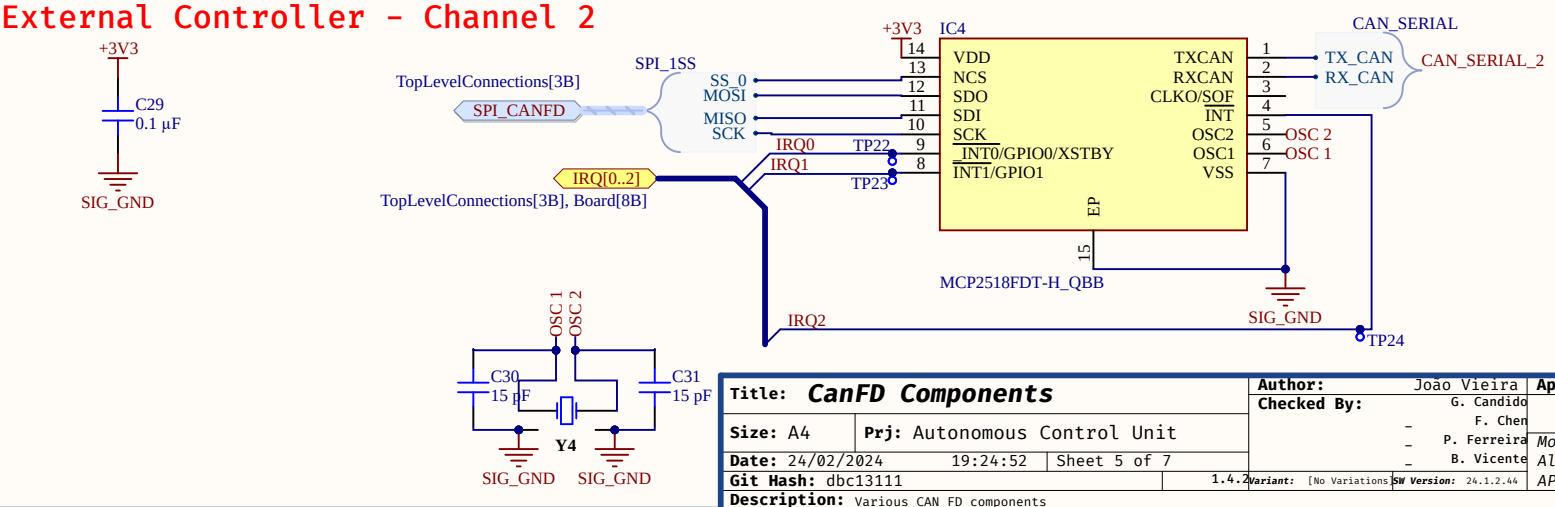
FD Transceiver Channel 1



FD Transceiver Channel 2



External Controller - Channel 2



Title: *CanFD Components*		**Author:** João Vieira	**Approved:** Diogo Gomes
Size: A4	**Prj:** Autonomous Control Unit	**Checked By:** G. Candido, F. Chen, P. Ferreira, B. Vicente	LART
Date: 24/02/2024	19:24:52 Sheet 5 of 7		Morro do lena Alto Do Vieiro APT 4163, Building D
Git Hash: dbc13111	1.4.2	*Variant:* [No Variations] *SW Version:* 24.1.2.44	
Description: Various CAN FD components			

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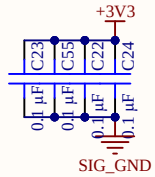
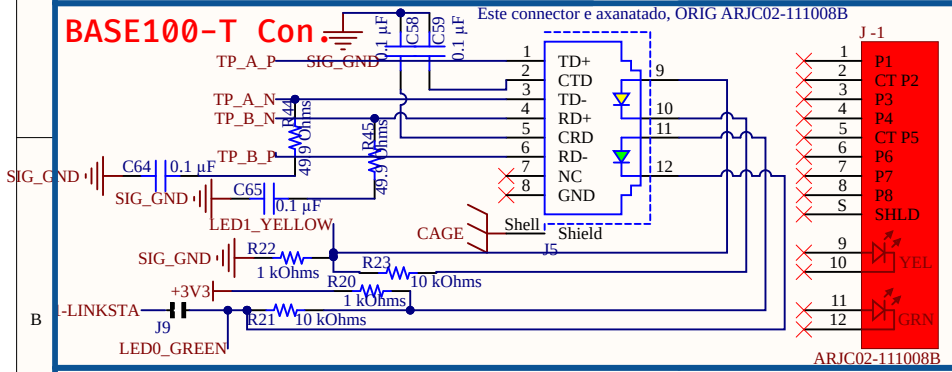
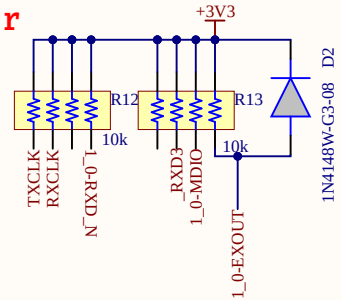
Decoupling Caps



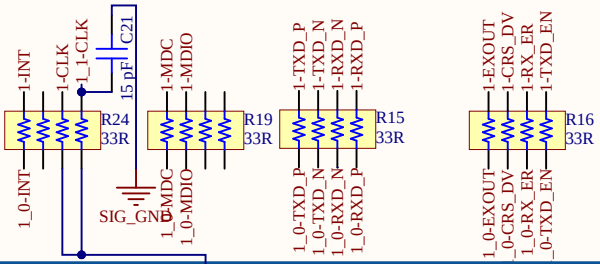
BASE100-T Con



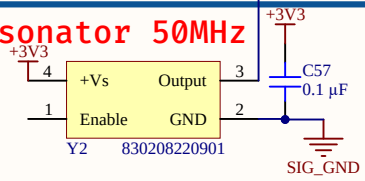
Pull Power



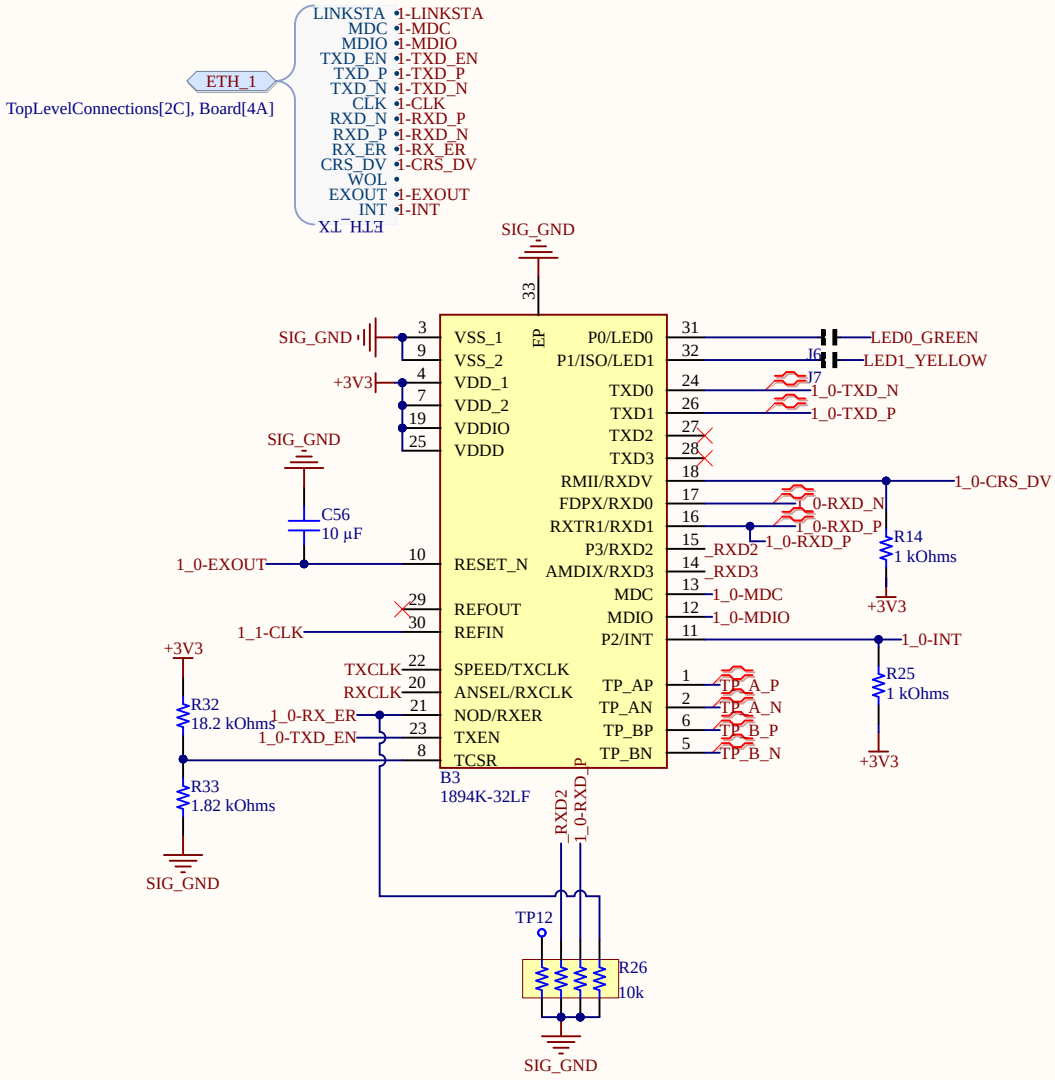
Termination Resistors



Resonator 50MHz



Ethernet PHY Base10/Base100



Title: *High Speed Interfaces*		**Author:** João Vieira	**Approved:** Diogo Gomes
Size: A4	**Prj:** Autonomous Control Unit	**Checked By:** G. Candido, F. Chen, P. Ferreira, B. Vicente	LART
Date: 24/02/2024 19:24:52	Sheet 6 of 7		*Morro do lena, Alto Do Vieiro, APT 4163, Building D*
Git Hash: dbc13111	1.4.2	**Variant:** [No Variations] **SW Version:** 24.1.2.44	
Description: The various High Speed IOs, for now this only includes Ethernet			

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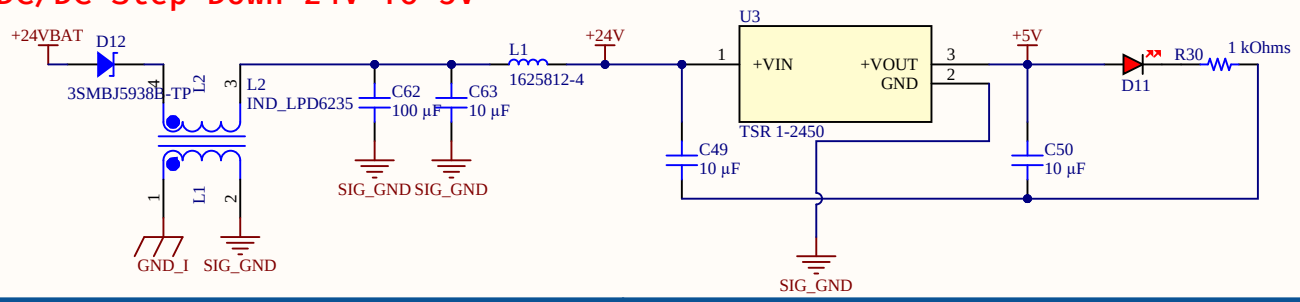
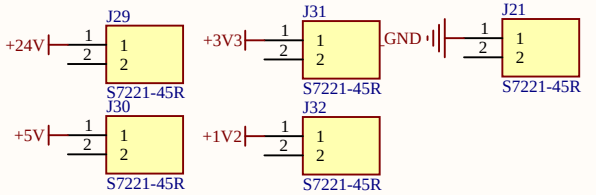
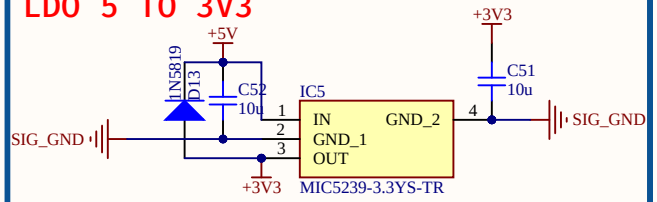
DC/DC Step Down 24V TO 5V



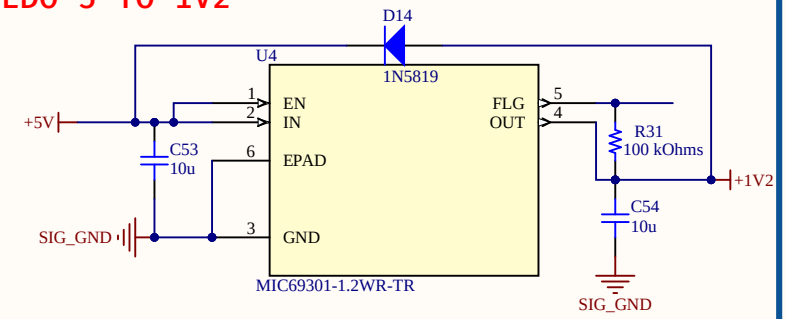
Test Power Probes



LDO 5 TO 3V3



LDO 5 TO 1V2



TODO: add backup super-cap circuit

Bonus: Free Space :^)

Title: *Power*		**Author:** João Vieira	**Approved:** Diogo Gomes
Size: A4	**Prj:** Autonomous Control Unit	**Checked By:** G. Candido, F. Chen, P. Ferreira, B. Vicente	LART
Date: 24/02/2024 19:24:52	Sheet 7 of 7		Morro do lena Alto Do Vieiro APT 4163, Building D
Git Hash: dbc13111	1.4.2	*Variant:* [No Variations] *SW Version:* 24.1.2.44	
Description: Includes the various reference voltages needed to power all the chips in the ACU			

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