

Title:

Sheet: /STM/

Rev:

Author: Evan

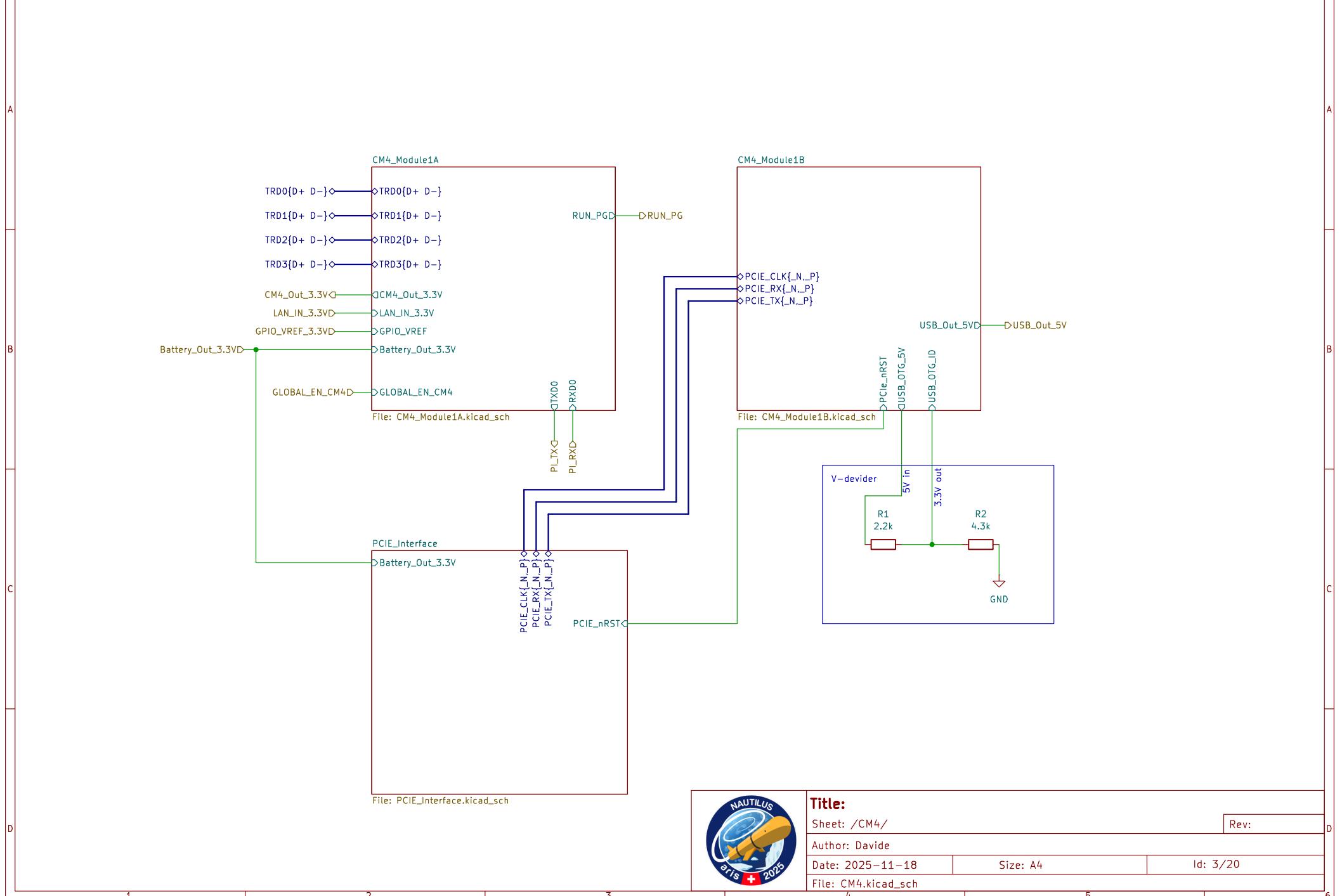
Date: 2025-11-18

Size: A4

Id: 2/20

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1 2 3 4 5 6



A

A

B

B

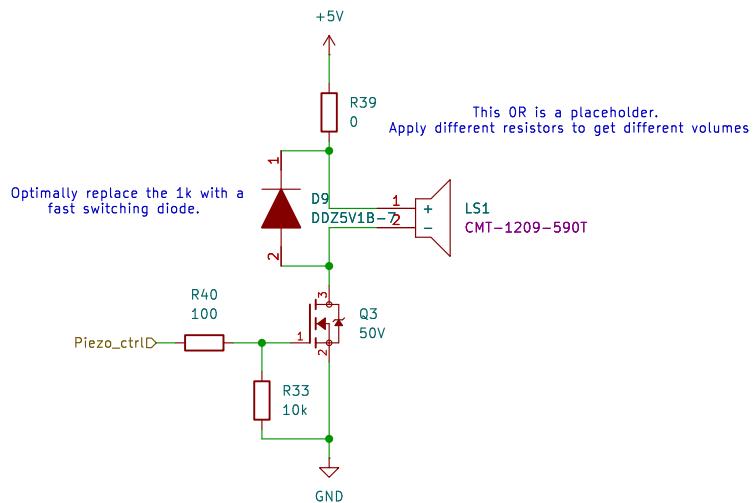
C

C

D

D

Not in the PCB yet as we dont know if we actually need it.


Title:

 Sheet: /Piezzo/

Rev:

Author: Evan

Date: 2025-11-18

Size: A4

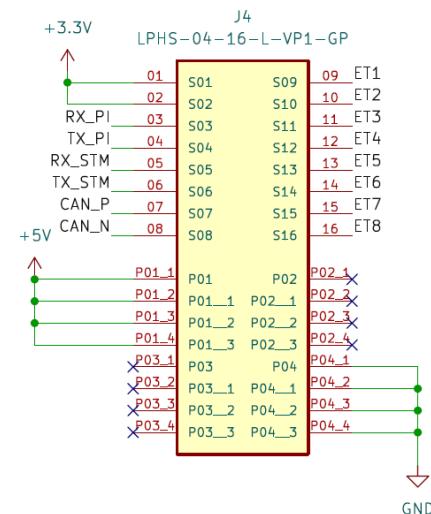
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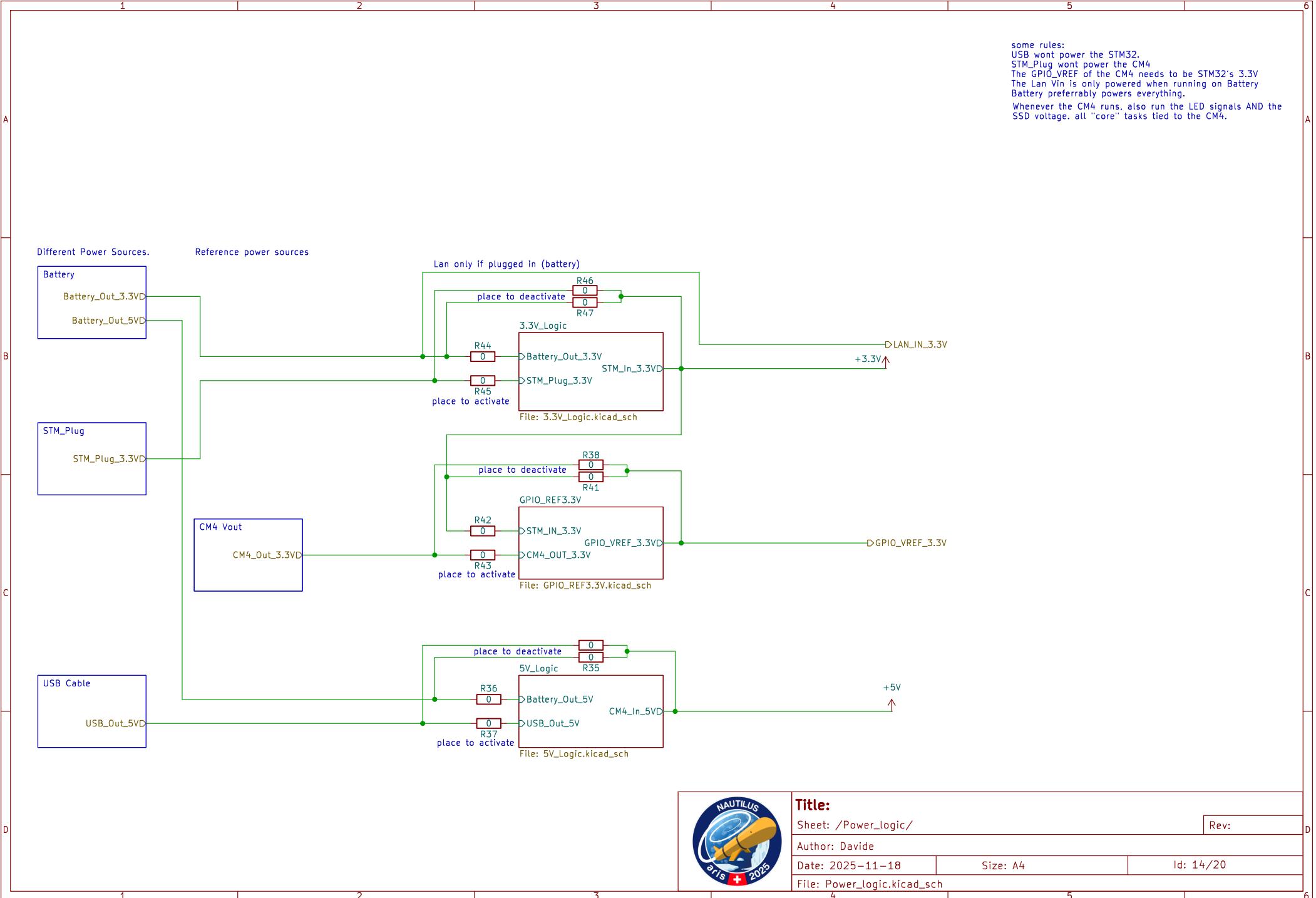
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A

A

Mainboard





A

A

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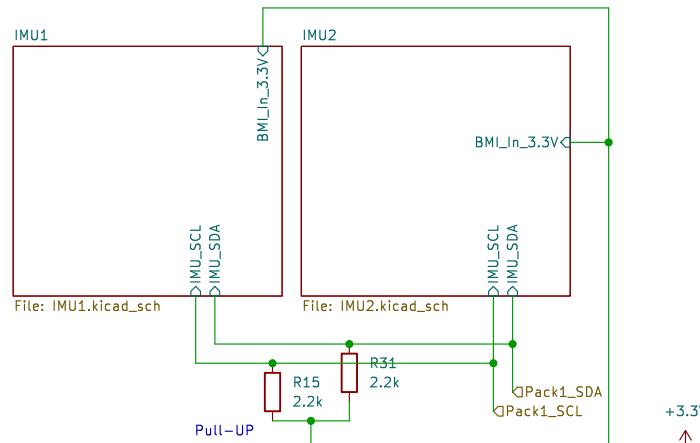
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**Title:**

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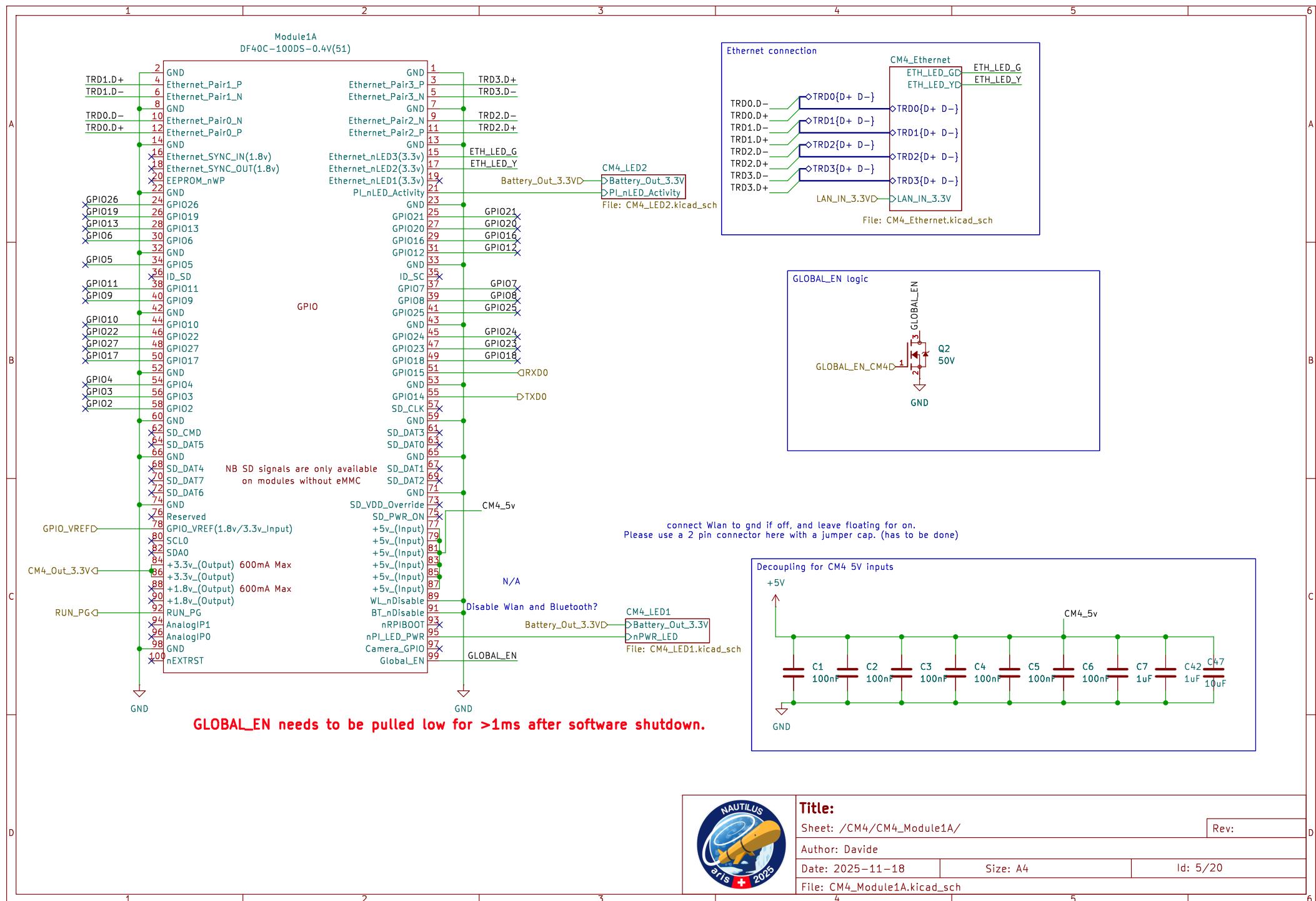
Author: Davide

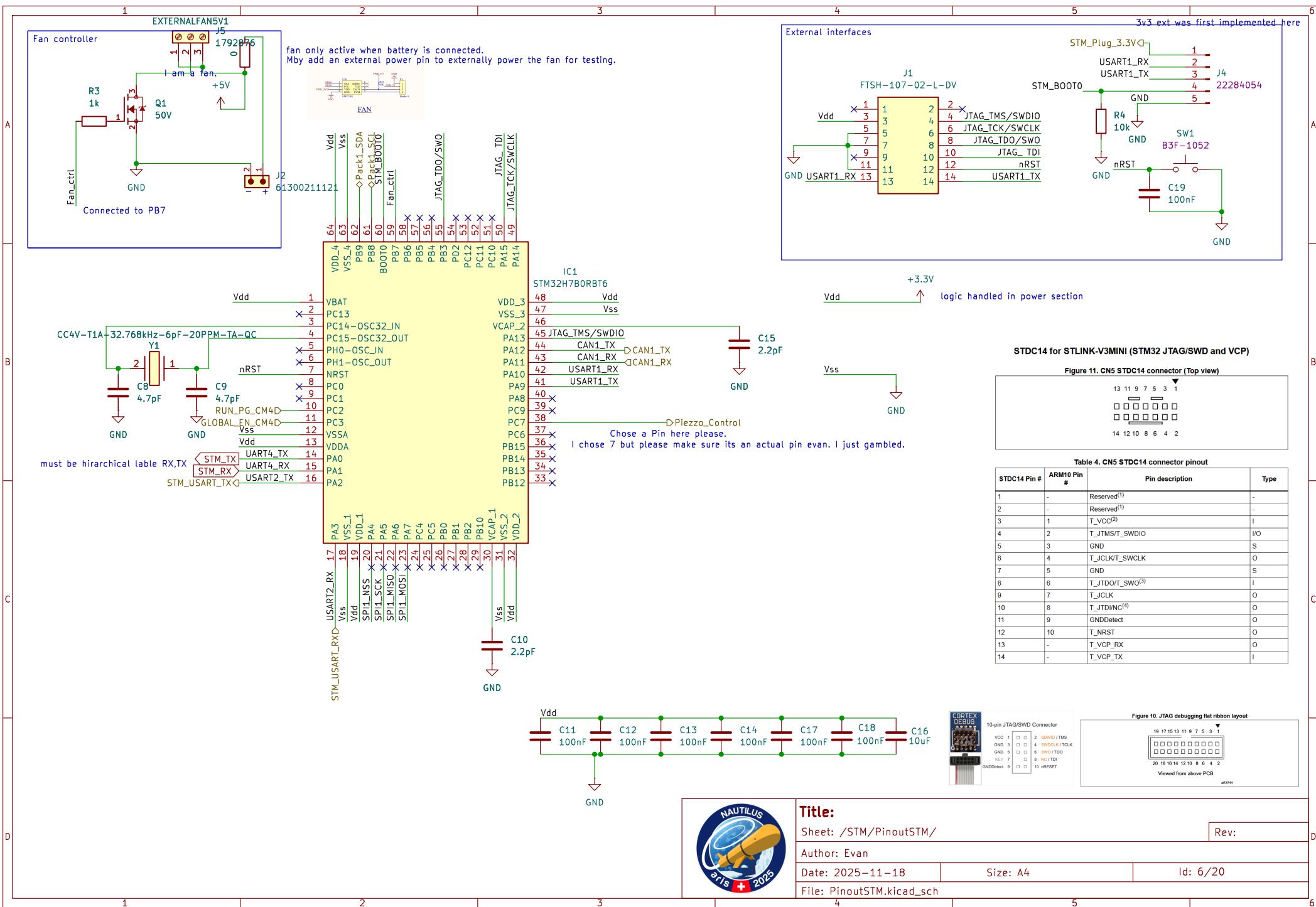
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Size: A4

Id: 18/20

File: IMU.kicad_sch





A

A

B

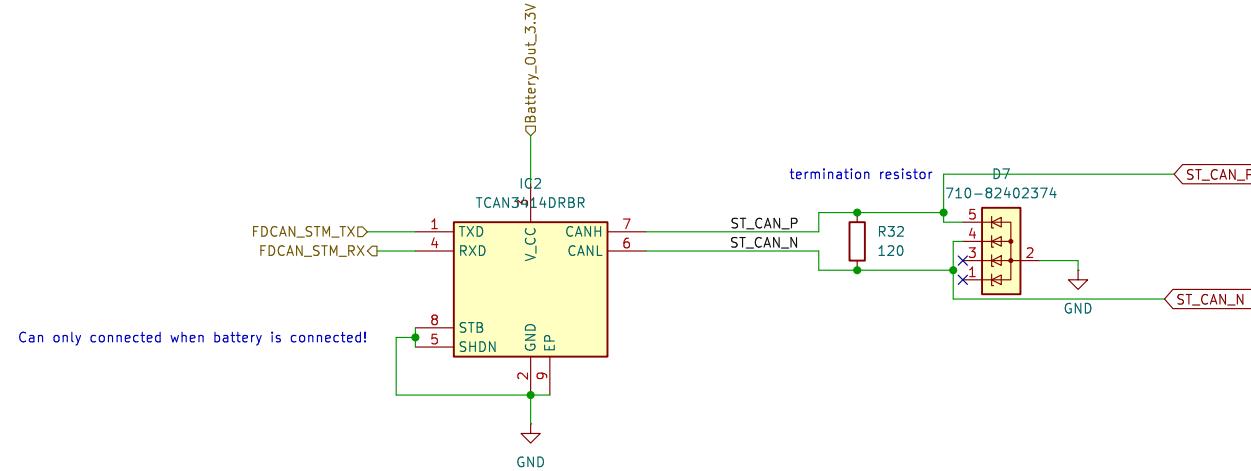
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D

**Title:**

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Rev:

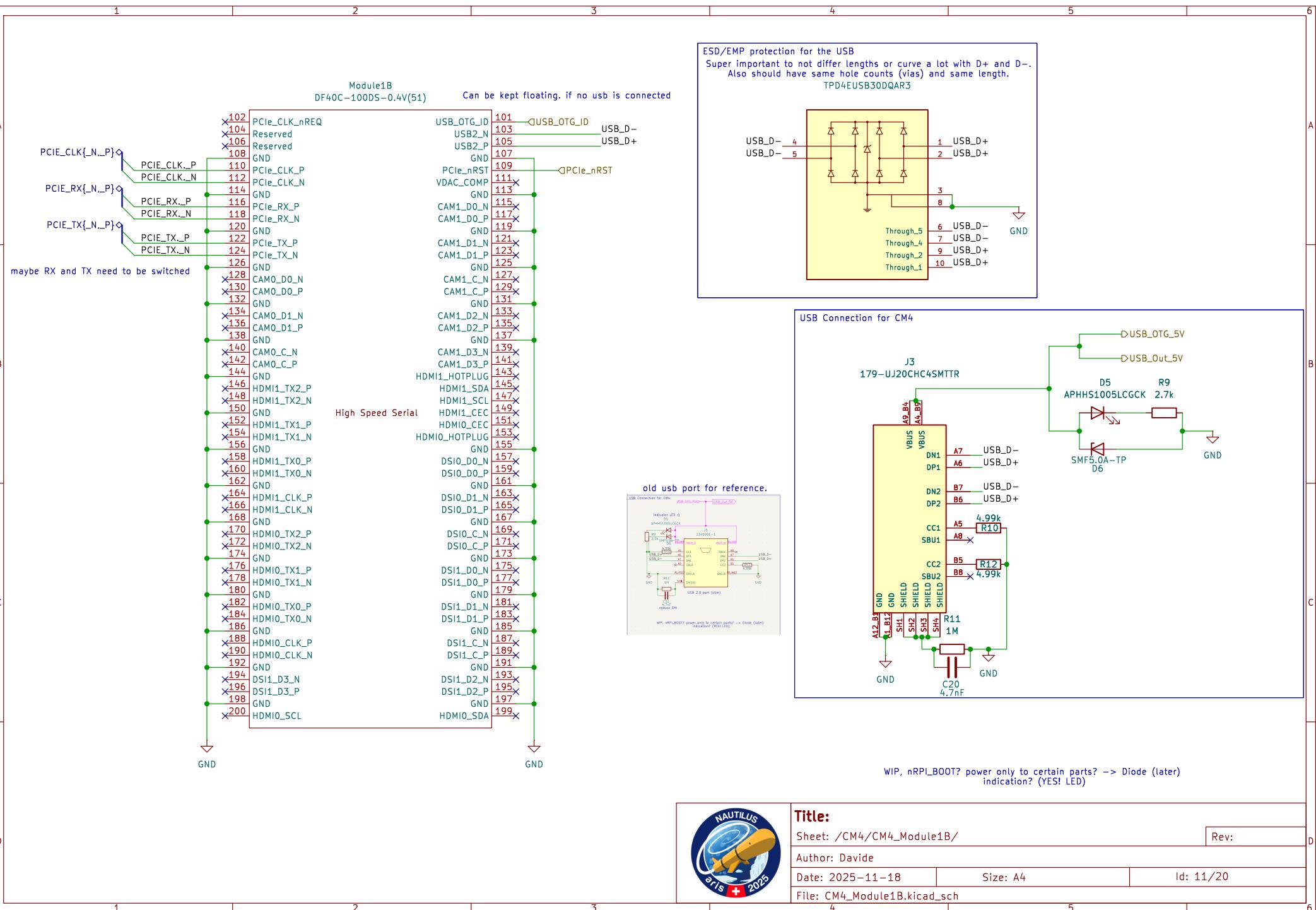
Author: Evan

Date: 2025-11-18

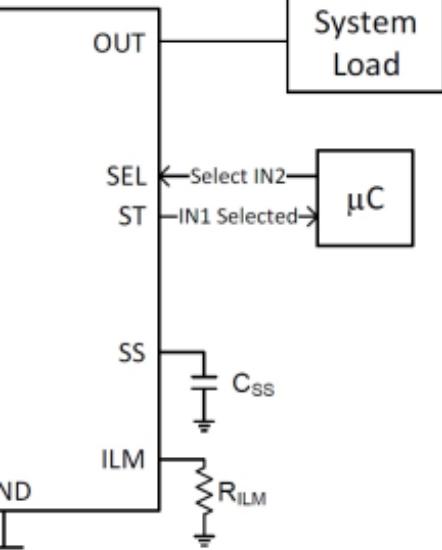
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Id: 7/20

File: PowerSTM.kicad_sch



212x



for questions about wiring etc please consult the datasheet...
<https://www.ti.com/lit/ds/symlink/tps2120.pdf?ts=1761678178328>

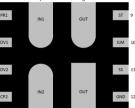
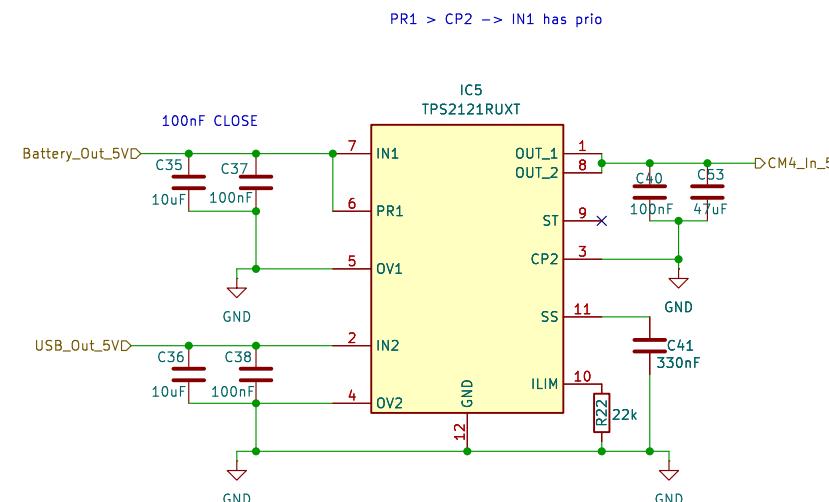


Figure 6-2. TPS2121 (RUX) Package 12-Pin VQFN-HR Bottom View

Pin Functions		
NAME	TPS2120	TPS2121
	WICSP	VQFN-HR
IN1	B1, B2, C1	7
IN2	B3, B4, C2	2
OUT	C2, C3, D1, 1, 8	1
ST	E1, E2	9
ILIM	E2	10
SS	E3	11
GND	E4	12
PR1	A1	6
OV1	A2	5
OV2	A3	4
SEL	A4	—

CP2 — 3 i Enables Comparator Operation and is compared to PR1 to set switchover voltage. Connect to GND if not required. TPS2120 only.

if the USB-only cold start "disconnects" we can try to bump SS to 470nF instead of 330nF.

Pins	MIN	MAX	UNIT
V _{IN1} , V _{IN2} , V _{OUT}	-0.3	24	V
V _{OV1} , V _{OV2}	-0.3	6	V
V _{PRI} , V _{SEL}	-0.3	6	V
V _{ST}	-0.3	6	V
I _{OUT}	Internally Limited		
T _{J, MAX}	Internally Limited		
T _{STG}	-65	150	°C



Title:

Sheet: /Power_logic/5V_Logic/

Rev: D

Author: Davide

Size: A4

Id: 12/20

Date: 2025-11-18

A

A

B

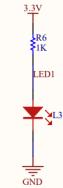
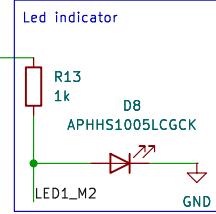
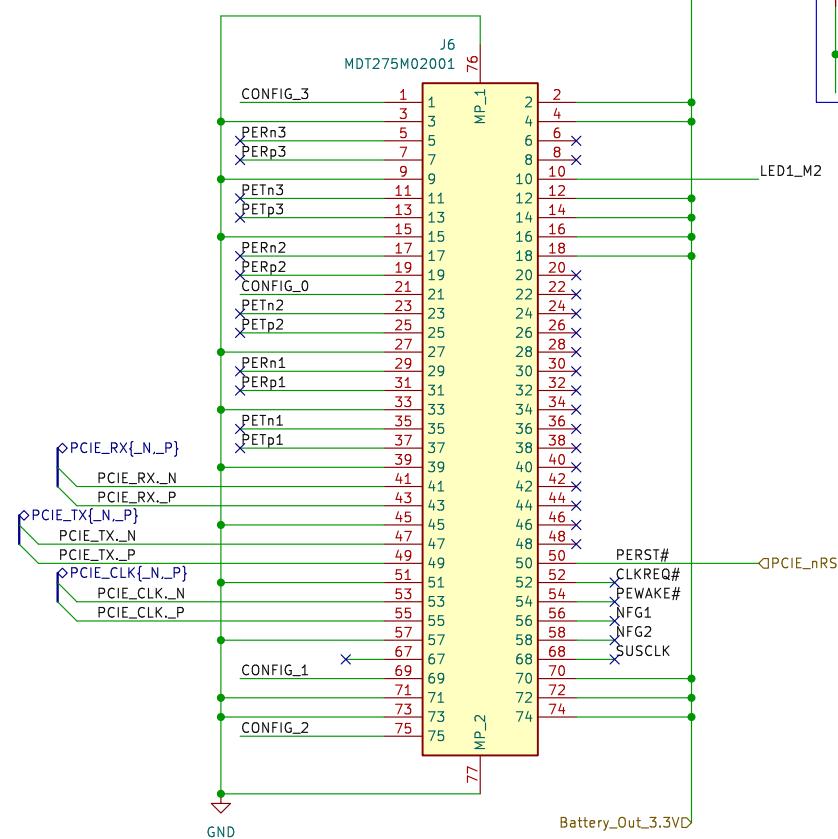
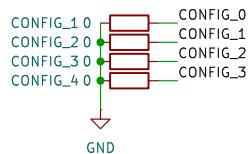
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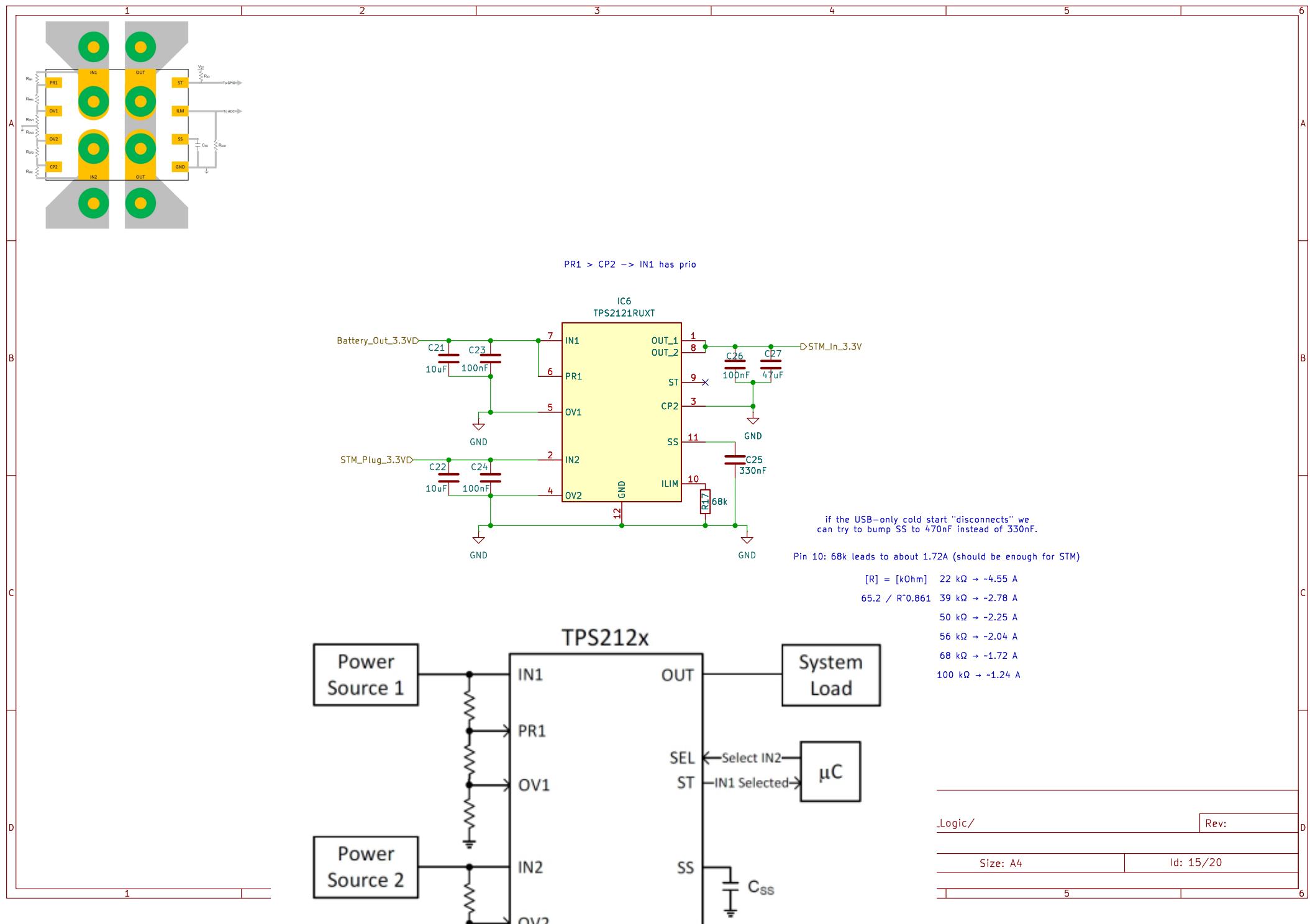
Author: Davide

Size: A4

Id: 13/20

Date: 2025-11-18

File: PCIE_Interface.kicad_sch



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A

A

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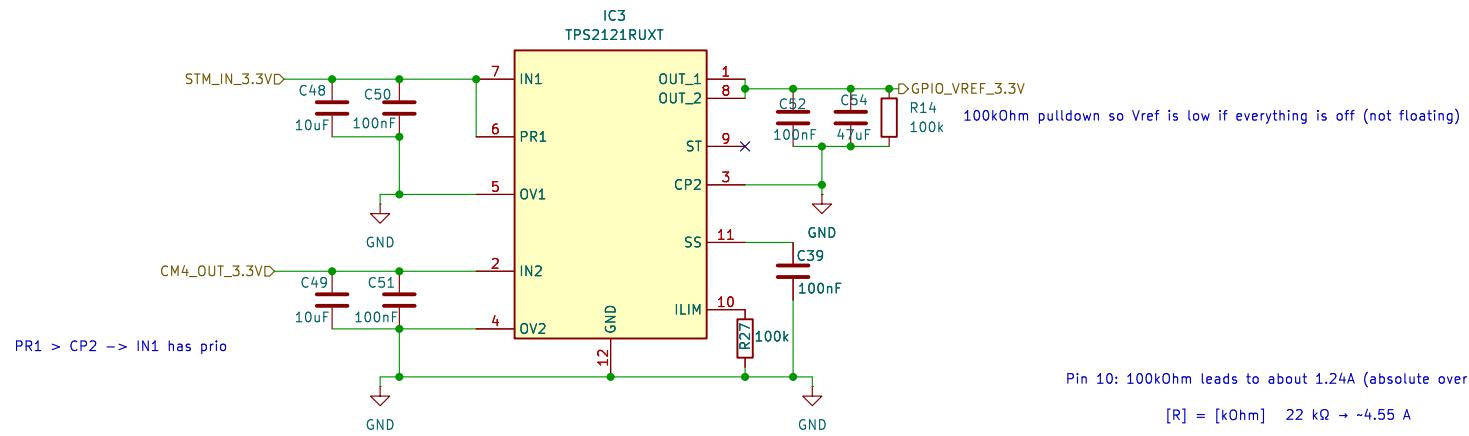
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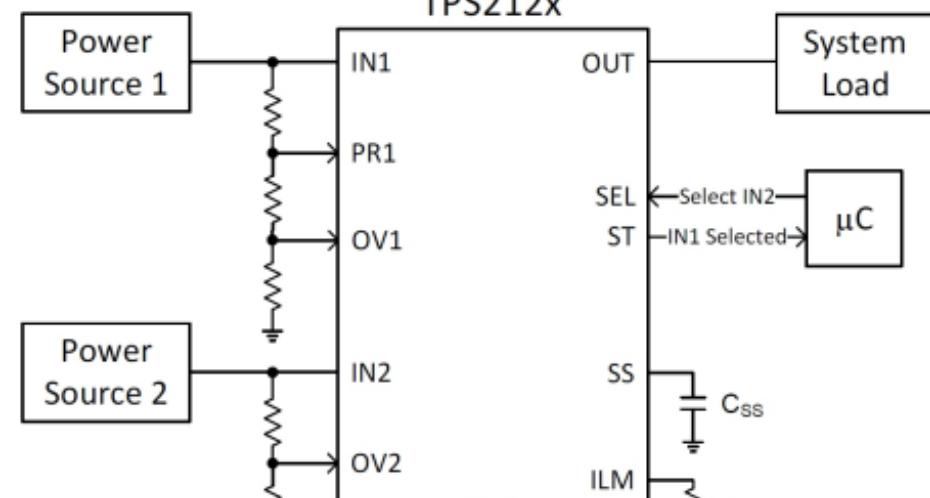
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TPS212x



3V/

Rev:

Size: A4

Id: 16/20

5

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1 2 3 4 5 6

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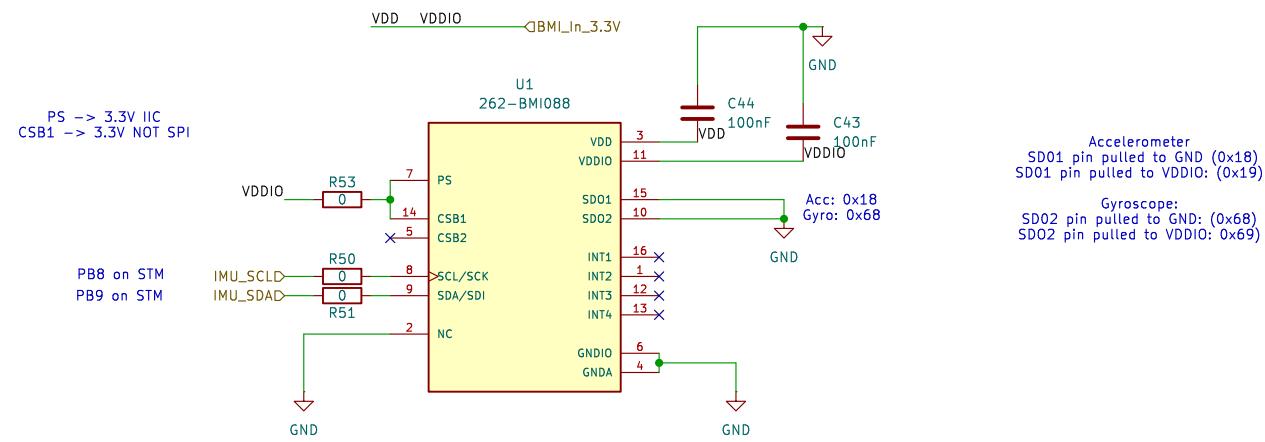
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Title:

Sheet: /IMU/IMU1/

Rev:

Author: Davide

Date: 2025-11-18

Size: A4

Id: 19/20

File: IMU1.kicad_sch



1 2 3 4 5 6

A

A

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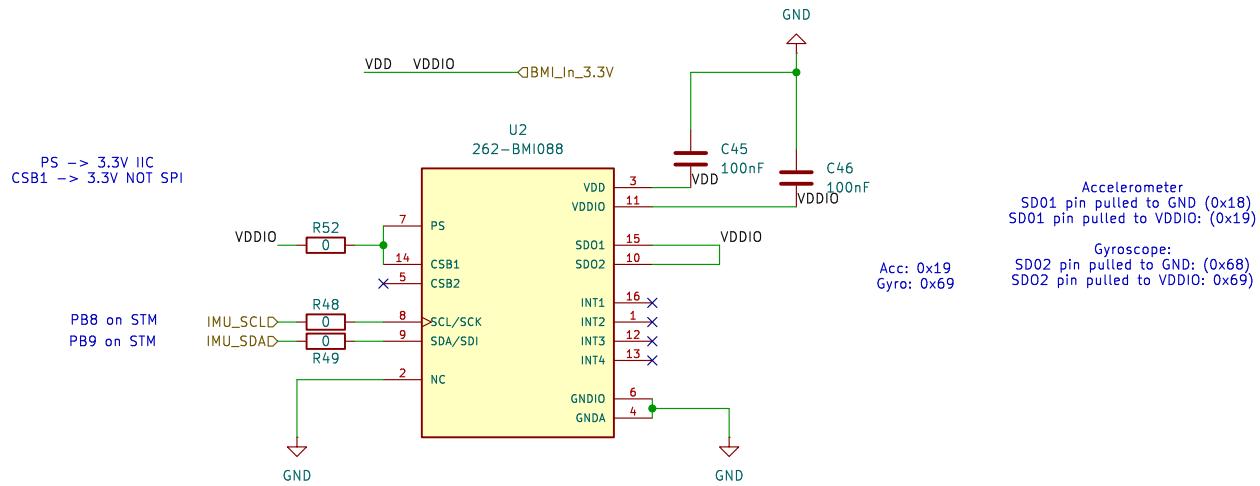
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**Title:**

Sheet: /IMU/IMU2/

Rev:

Author: Davide

Date: 2025-11-18

Size: A4

Id: 20/20

File: IMU2.kicad_sch

A

A

B

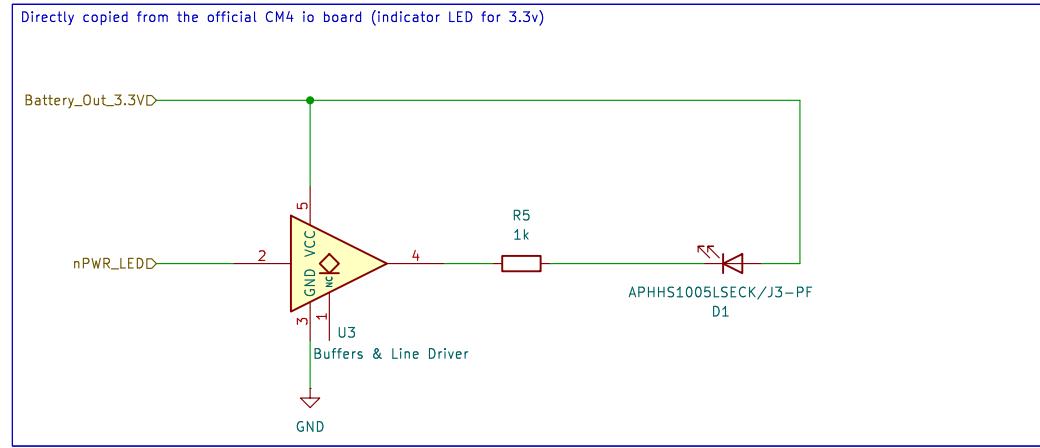
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C

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D

**Title:**

Sheet: /CM4/CM4_Module1A/CM4_LED1/

Rev:

Author: Davide

Date: 2025-11-18

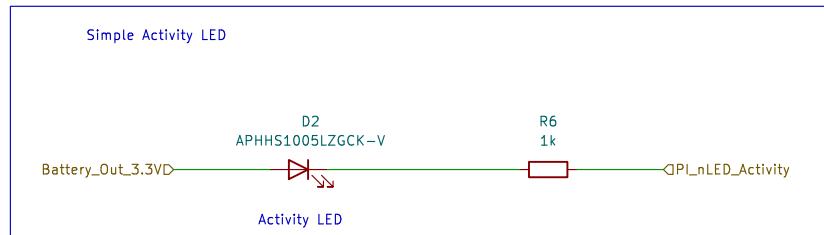
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A

A



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**Title:**

Sheet: /CM4/CM4_Module1A/CM4_LED2/

Rev:

Author: Davide

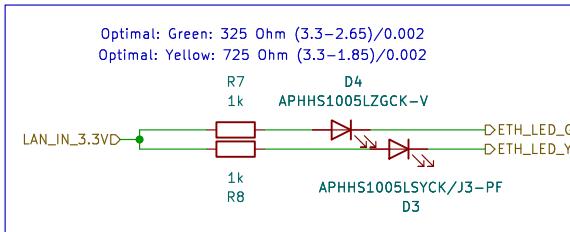
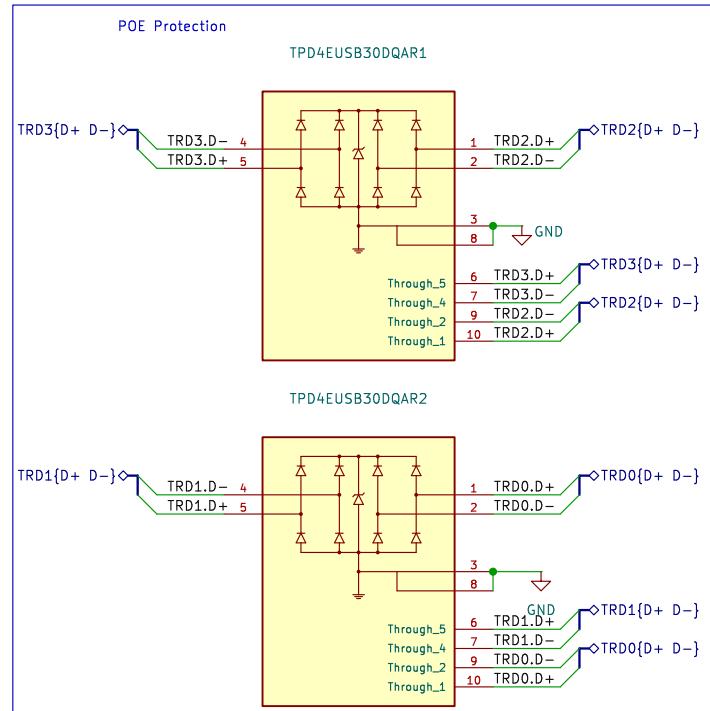
Date: 2025-11-18

Size: A4

Id: 9/20

File: CM4_LED2.kicad_sch

A



B

A

C

B

D

C

D

**Title:**

Sheet: /CM4/CM4_Module1A/CM4_Ethernet/

Rev:

Author: Davide

Date: 2025-11-18

Size: A4

Id: 10/20

File: CM4_Ethernet.kicad_sch