

# Mainboard

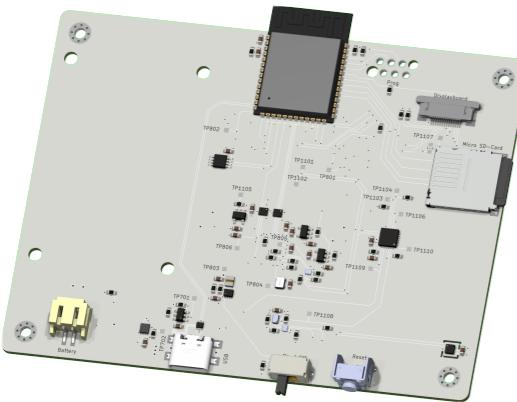
Variant: RELEASED

2026-01-19

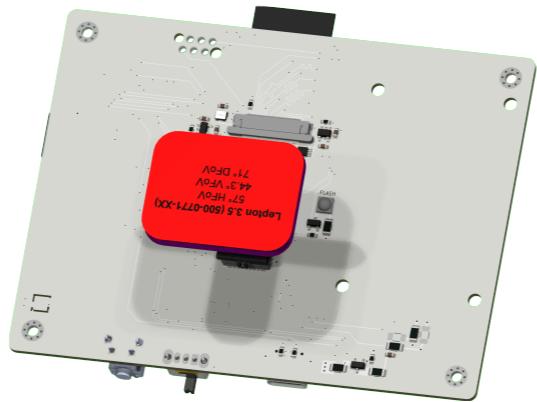
Rev 1

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## TOP VIEW



## BOTTOM VIEW



## NOTES

Comment

Not fitted components are marked as

DRAFT - Very early stage of schematic, ignore details.

PRELIMINARY - Close to final schematic.

CHECKED - There shouldn't be any mistakes. Contact the engineer if you find any.

RELEASED - A board with this schematic has been sent to production.

Date: 19-Jan-2026

## DESIGN CONSIDERATIONS

DESIGN NOTE:  
Example text for informational design notes.

DESIGN NOTE:  
Example text for debug notes.

DESIGN NOTE:  
Example text for cautionary design notes.

DESIGN NOTE:  
Example text for critical design notes.

LAYOUT NOTE:  
Example text for critical layout guidelines.

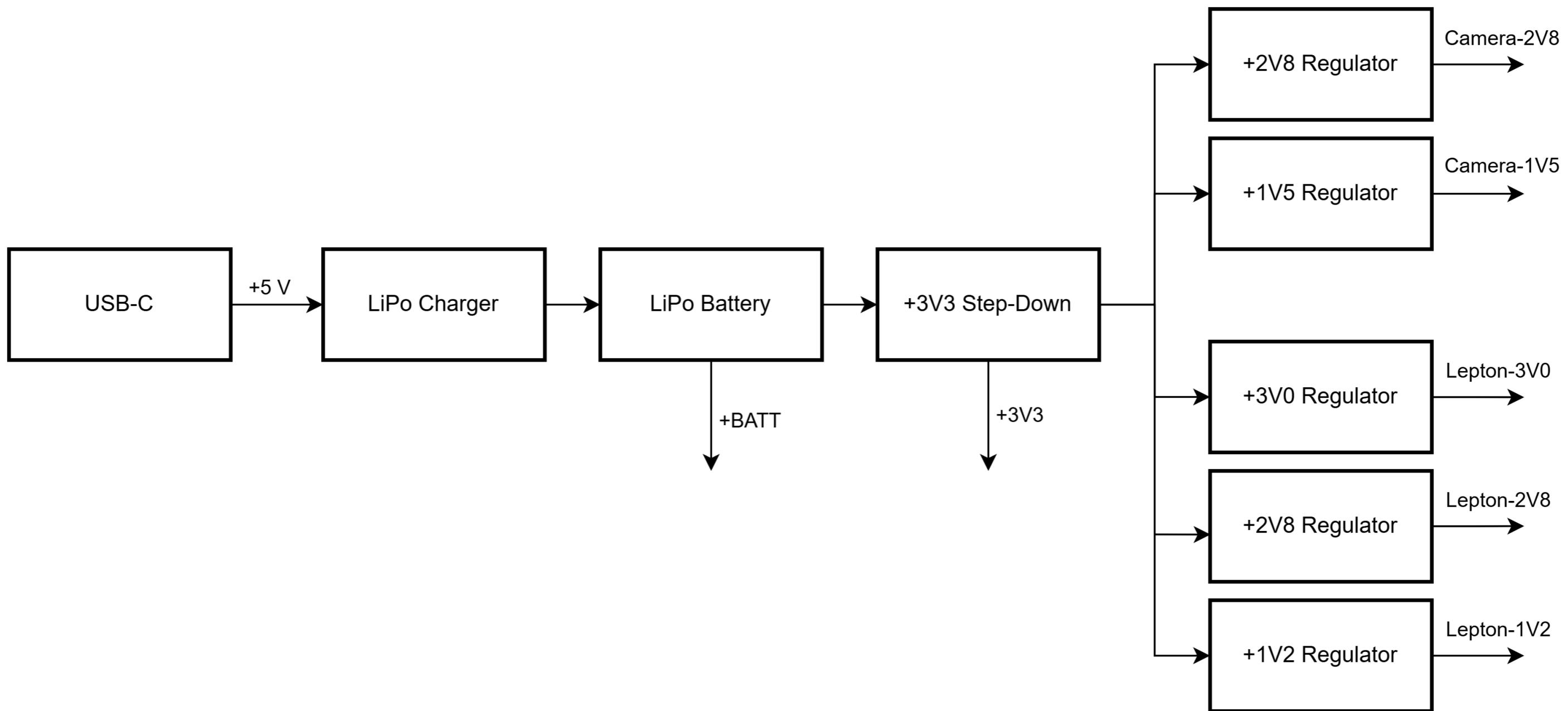
	Comments:	Company: <b>PyroVision</b>	Variant: <b>RELEASED</b>	Git Hash: <b>965ddee</b>
	Board Name: <b>Mainboard</b>	Project Name: <b>PyroVision</b>		
	Sheet Title: Template	File Name: Mainboard.kicad_sch	Designer: Daniel Kampert	Date: 2025-12-19 Revision: 1
	Sheet Path: /	Reviewer:	Size: <b>A3</b>	Sheet: <b>1 of 15</b>

## [2] Block Diagram

A	1	2	3	4	5	6	7	8
B								
C								
D								
E								
F	1	2	3	4	5	6	7	8

Comments:	Company: <b>PyroVision</b>	Variant: RELEASED	Git Hash: 965ddee	
	Board Name: <b>Mainboard</b>	Project Name: <b>PyroVision</b>		
	Sheet Title: Block Diagram	File Name: Block Diagram.kicad_sch	Designer: Daniel Kampert	Date: 2025-12-19
	Sheet Path: /Block Diagram/	Reviewer:	Size: <b>A3</b>	Sheet: <b>2 of 15</b>

### [3] Power - Topology



**Target specifications:**

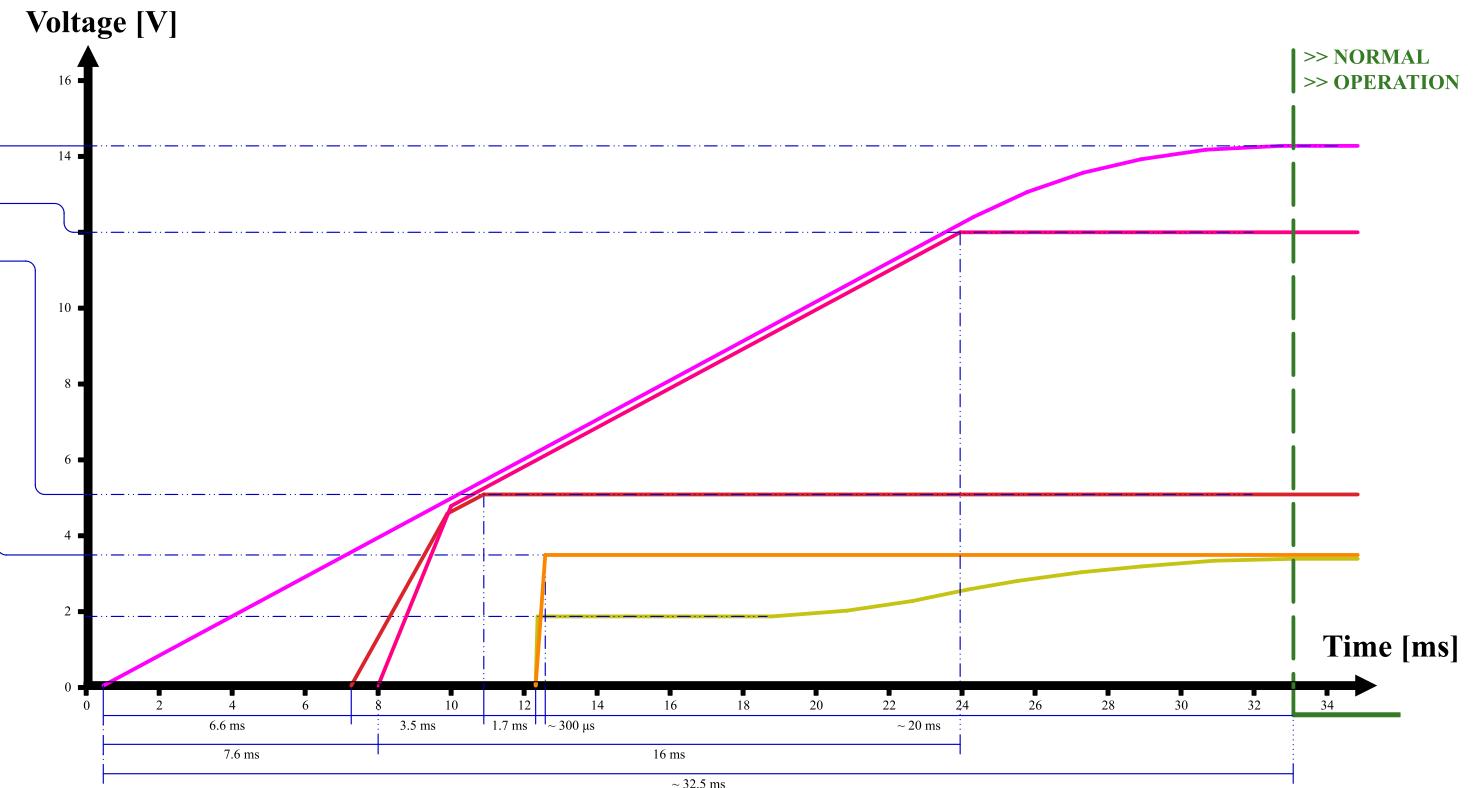
**Input voltage:** 5 V

**Max. Input Current** 540 mA

	Comments:  	Company: PyroVision	Variant: RELEASED	Git Hash: 965ddee
	Board Name: <b>Mainboard</b>	Project Name: <b>PyroVision</b>		
	Sheet Title: Power - Topology	File Name: Power - Topology.kicad_sch	Designer: Daniel Kampert	Date: 2025-12-19 Revision: 1
	Sheet Path: /Power - Topology/	Reviewer:	Size: <b>A3</b>	Sheet: <b>3 of 15</b>

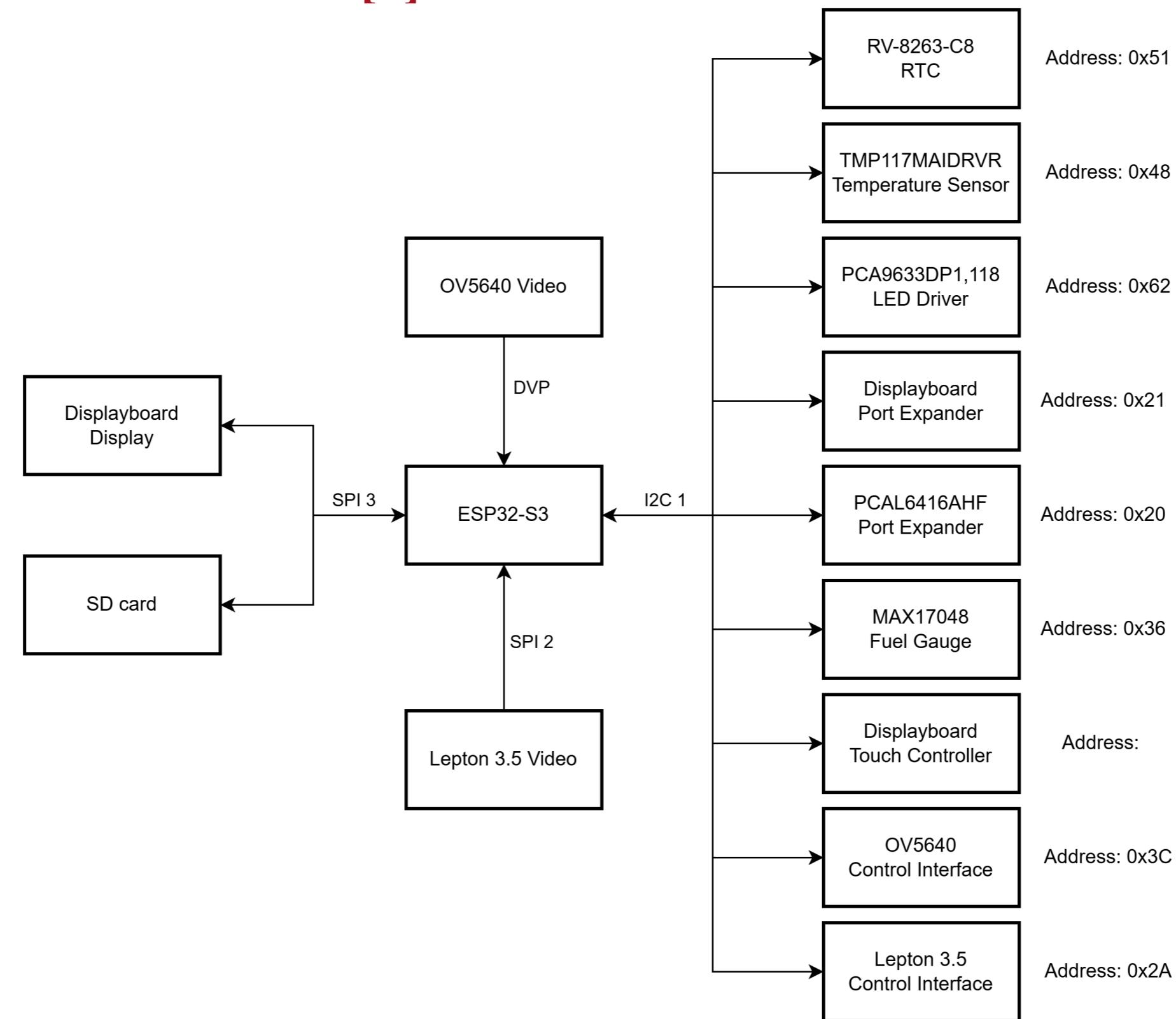
# [4] Power - Sequencing

NAME	SOURCE	LEVEL
+V??	??	? - ? ± ??%
+V??	??	? - ? ± ??%
+V??	??	? - ? ± ??%
+V??	??	? - ? ± ??%
+V??	??	? - ? ± ??%



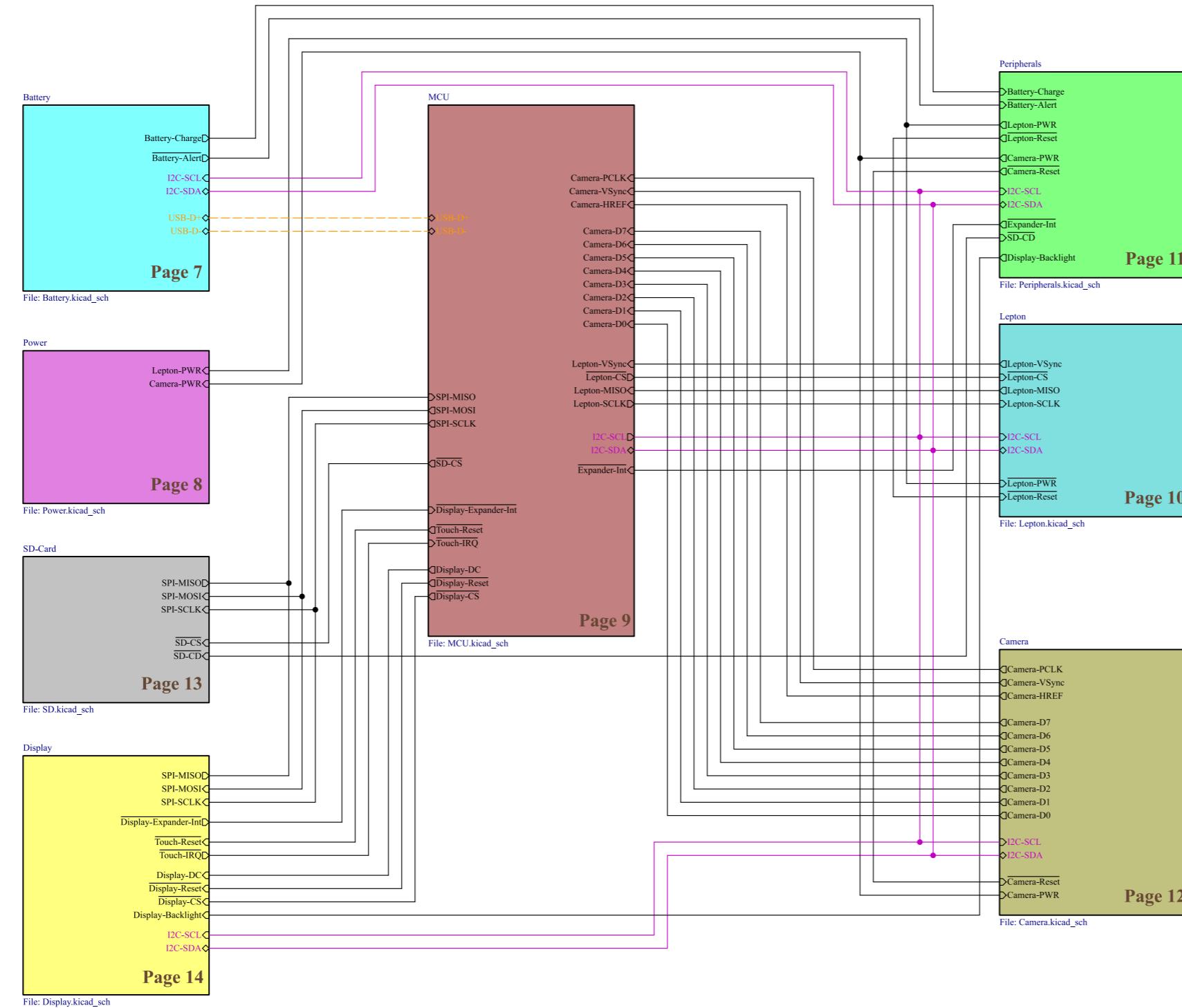
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Board Name: <b>Mainboard</b>	Project Name: <b>PyroVision</b>			
Sheet Title: Power - Sequencing	File Name: Power - Sequencing.kicad_sch	Designer: Daniel Kampert	Date: 2025-12-19	Revision: 1
Sheet Path: <a href="#">/Power - Sequencing/</a>	Reviewer:		Size: <b>A4</b>	Sheet: <b>4</b> of <b>15</b>

# [5] Interface - Tree



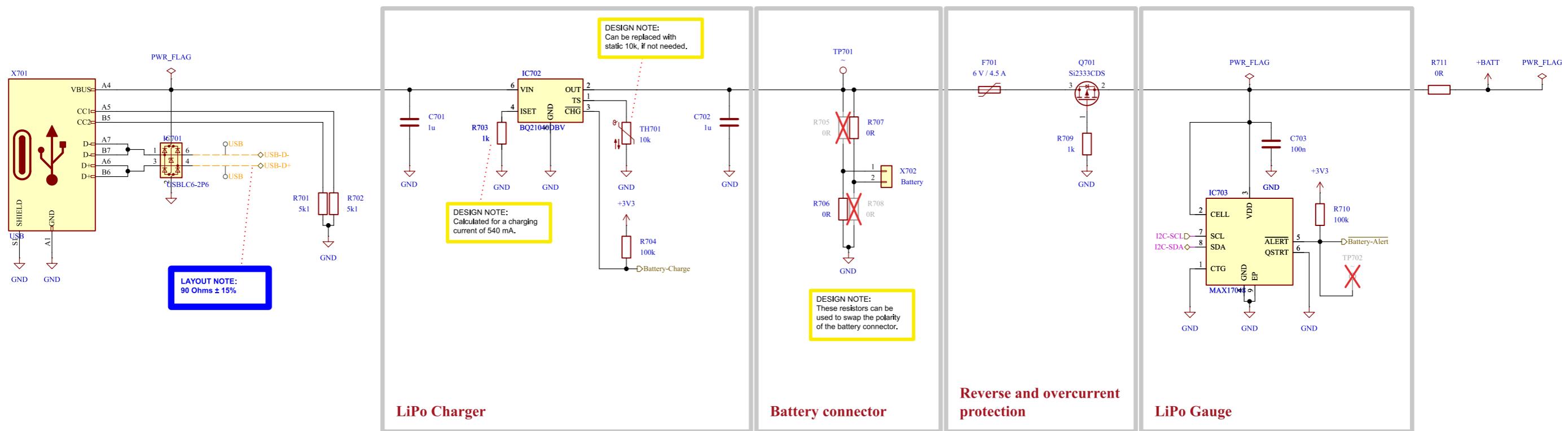
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	Board Name: <b>Mainboard</b>	Project Name: <b>PyroVision</b>		
	Sheet Title: Interface - Tree	File Name: Interface-Tree.kicad_sch	Designer: Daniel Kampert	Date: 2025-12-19 Revision: 1
	Sheet Path: /Interface - Tree/		Reviewer:	Size: <b>A3</b> Sheet: <b>5 of 15</b>

# [6] Project Architecture



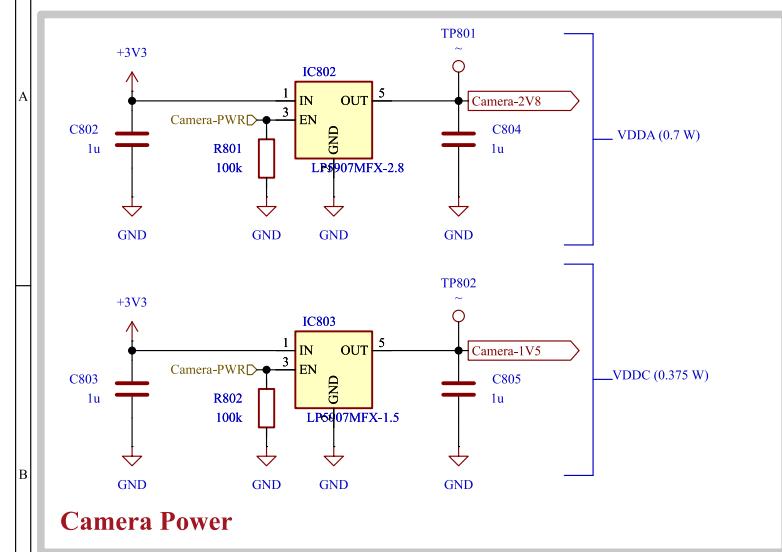
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	Board Name: <b>Mainboard</b>	Project Name: <b>PyroVision</b>		
	Sheet Title: Project Architecture	File Name: Project Architecture.kicad_sch	Designer: Daniel Kampert	Date: 2025-12-19
	Sheet Path: /Project Architecture/		Reviewer:	Size: <b>A3</b> Sheet: <b>6 of 15</b>

# [7] Battery

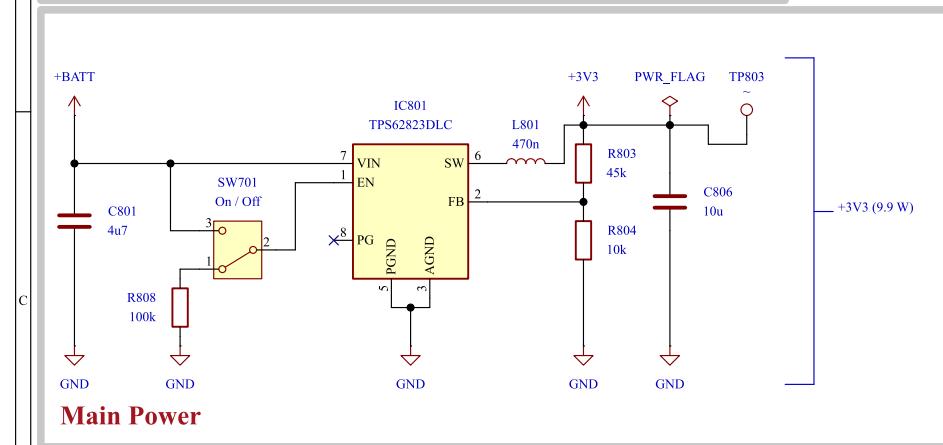


	Comments:	Company: PyroVision	Variant: RELEASED	Git Hash: 965ddee
	Board Name: <b>Mainboard</b>	Project Name: <b>PyroVision</b>		
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	Sheet Path: /Project Architecture/Battery/		Reviewer:	Size: <b>A3</b>
				Sheet: <b>7 of 15</b>

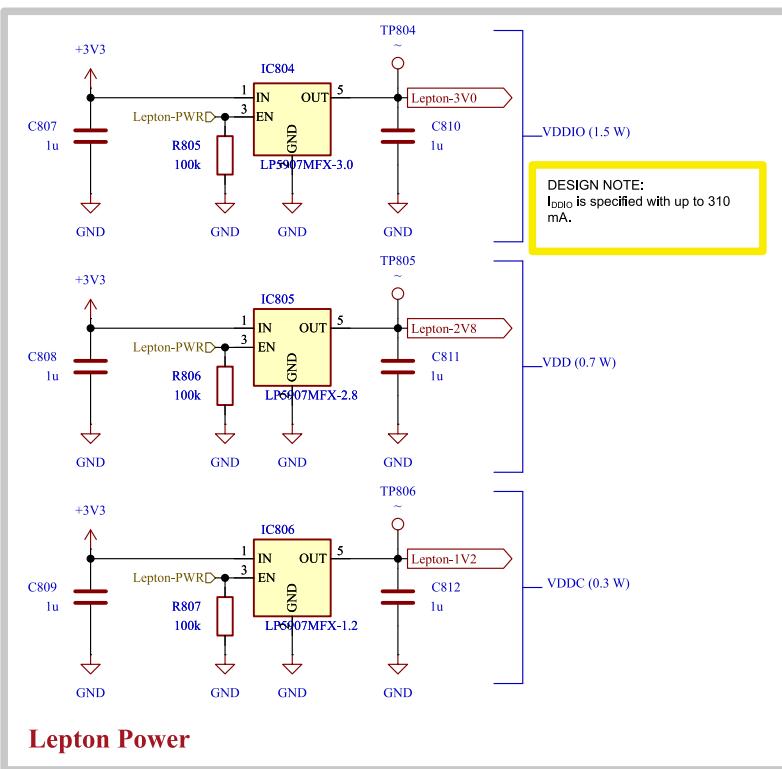
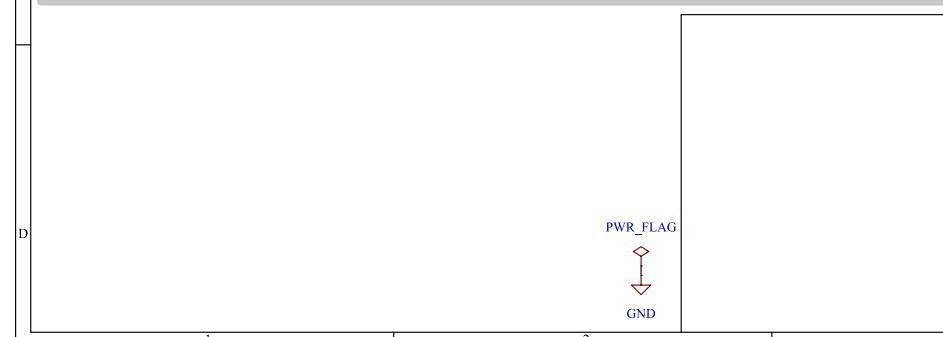
# [8] Power



**Camera Power**

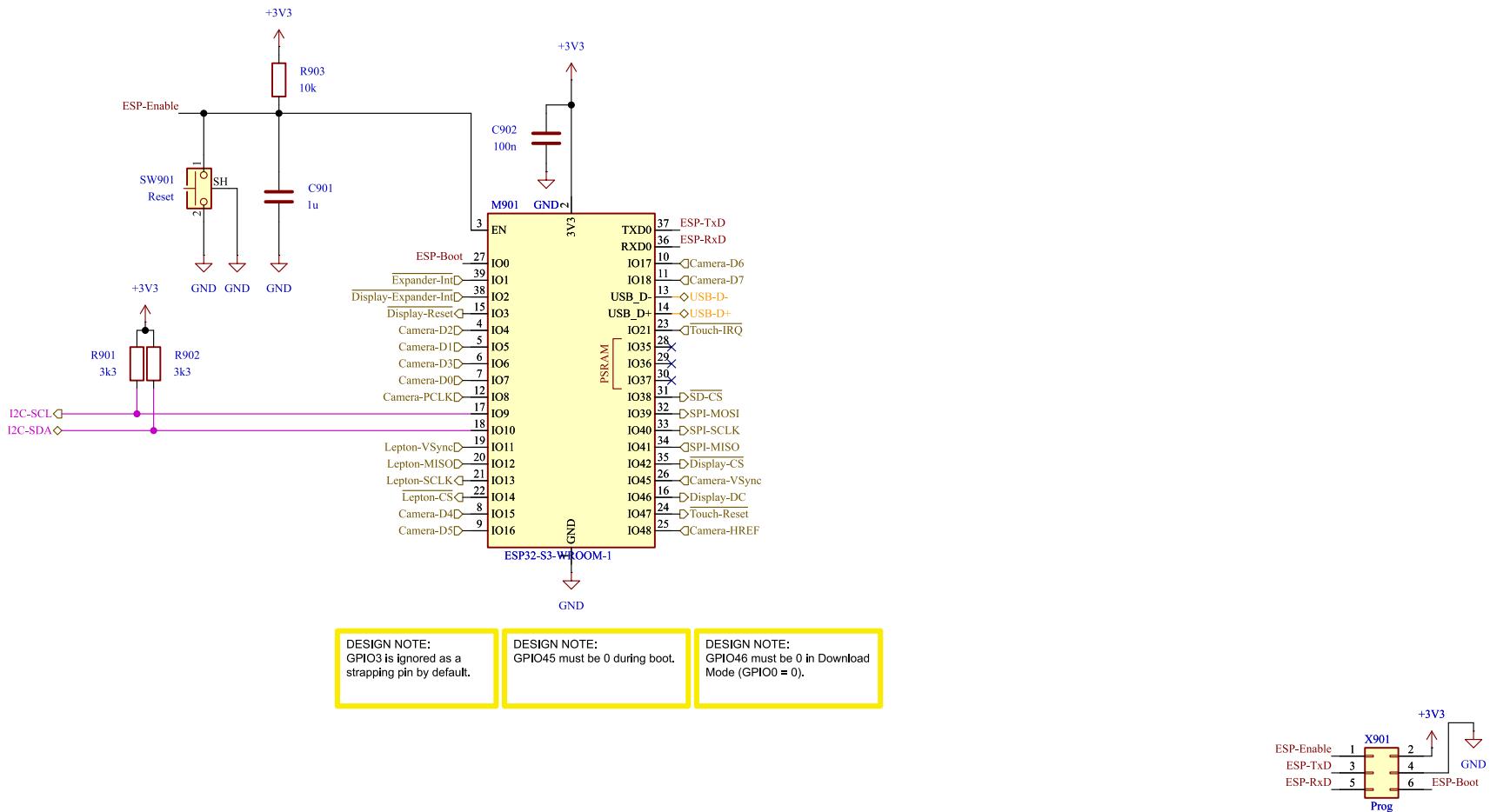


**Main Power**



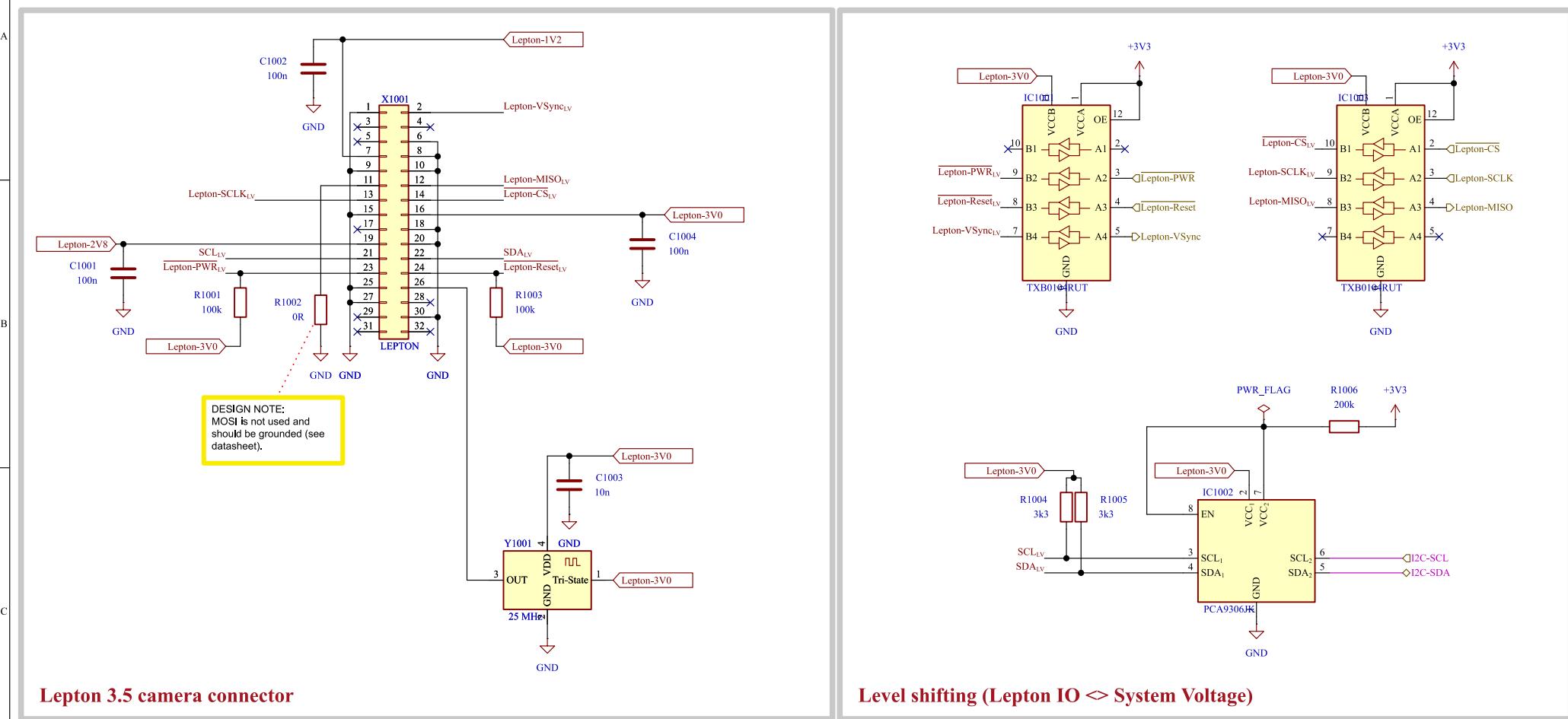
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Board Name:	<b>Mainboard</b>		Project Name: <b>PyroVision</b>	
Sheet Title:	File Name: Power.kicad_sch	Designer: Daniel Kampert	Date: 2025-12-19	Revision: 1
Sheet Path:	/Project Architecture/Power/		Reviewer:	Size: <b>A4</b> Sheet: <b>8</b> of <b>15</b>

# [9] MCU



	Comments:	Company: PyroVision	Variant: RELEASED	Git Hash: 965ddee
	Board Name: <b>Mainboard</b>			Project Name: <b>PyroVision</b>
	Sheet Title: MCU	File Name: MCU.kicad_sch	Designer: Daniel Kampert	Date: 2025-12-19   Revision: 1
	Sheet Path: <a href="#">/Project Architecture/MCU/</a>			Reviewer: Size: <b>A4</b>   Sheet: <b>9</b> of <b>15</b>

# [10] Lepton

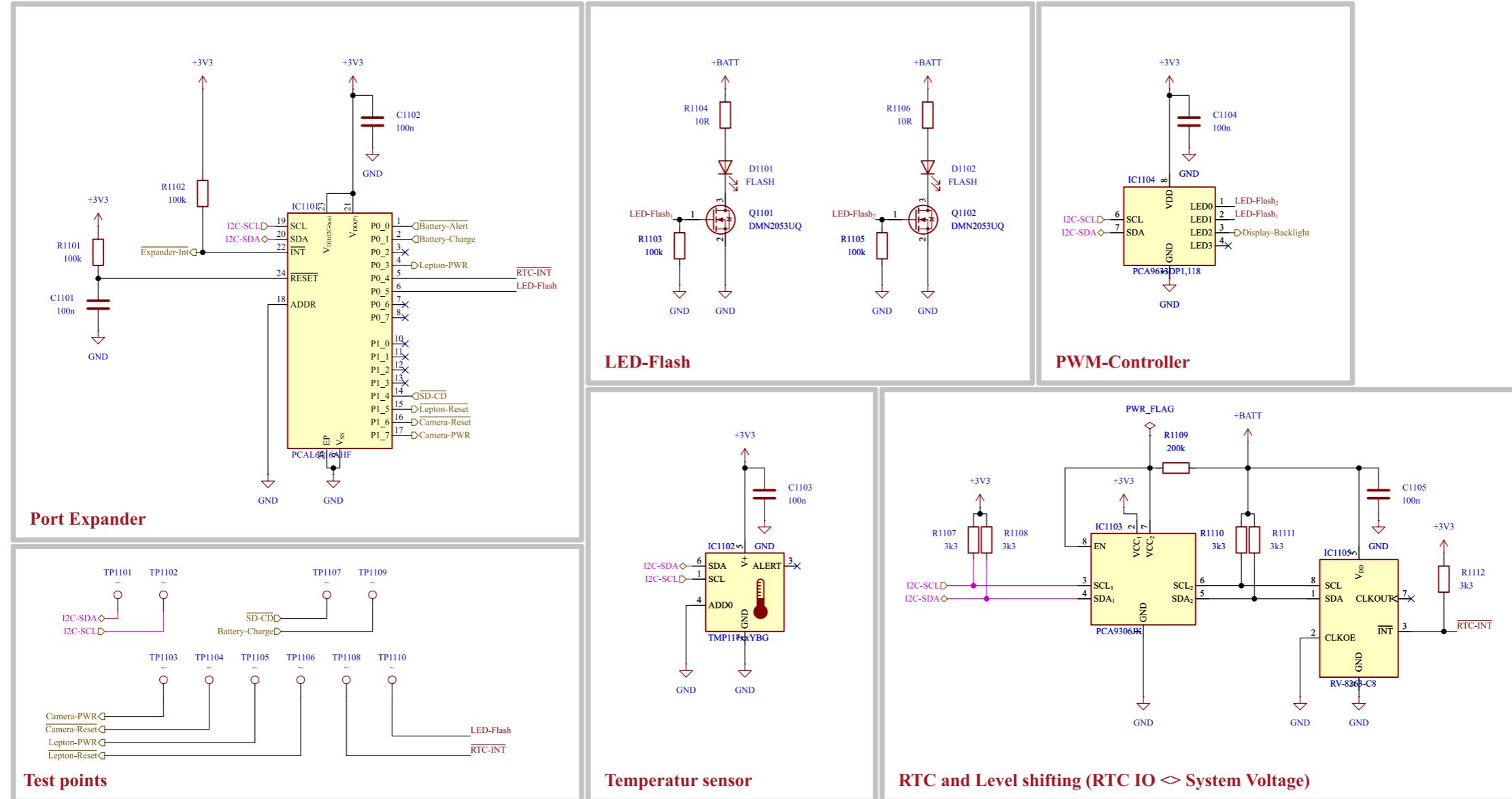


Lepton 3.5 camera connector

Level shifting (Lepton IO <>> System Voltage)

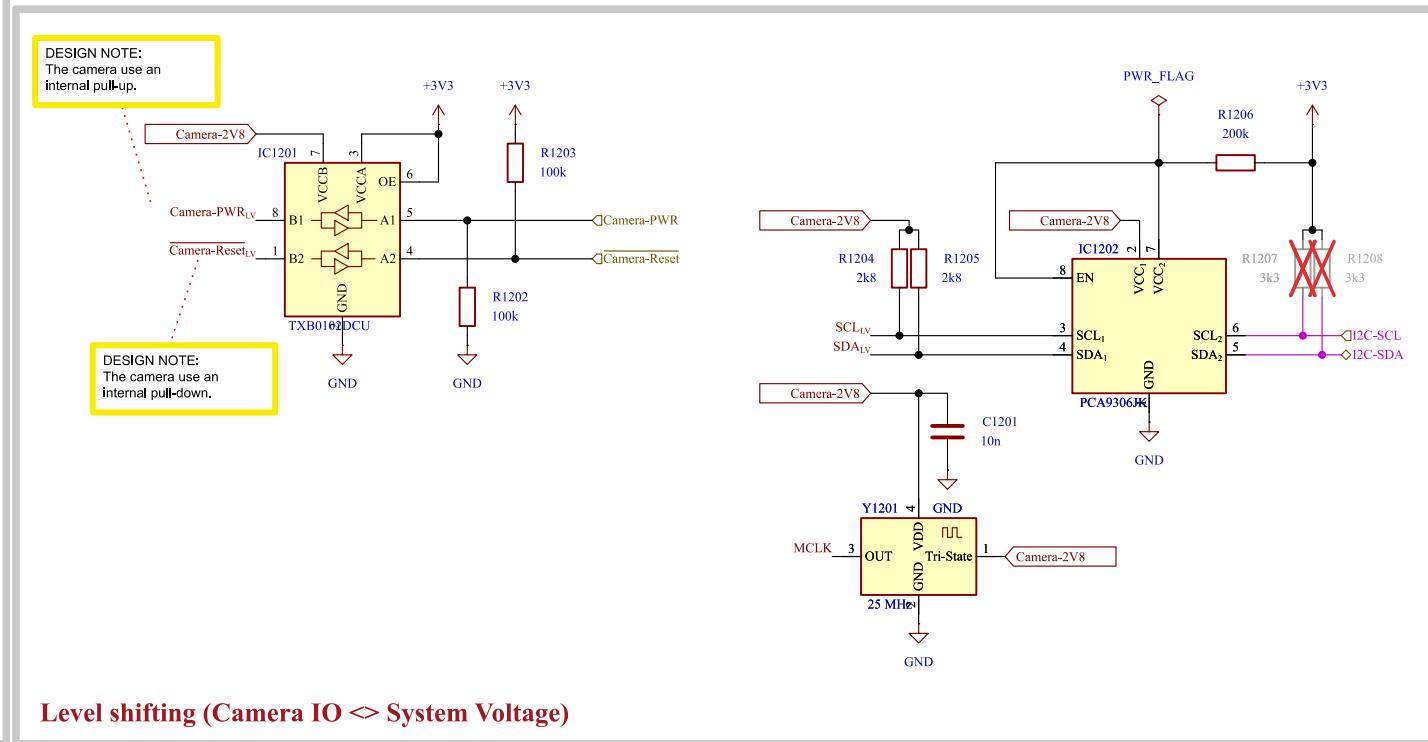
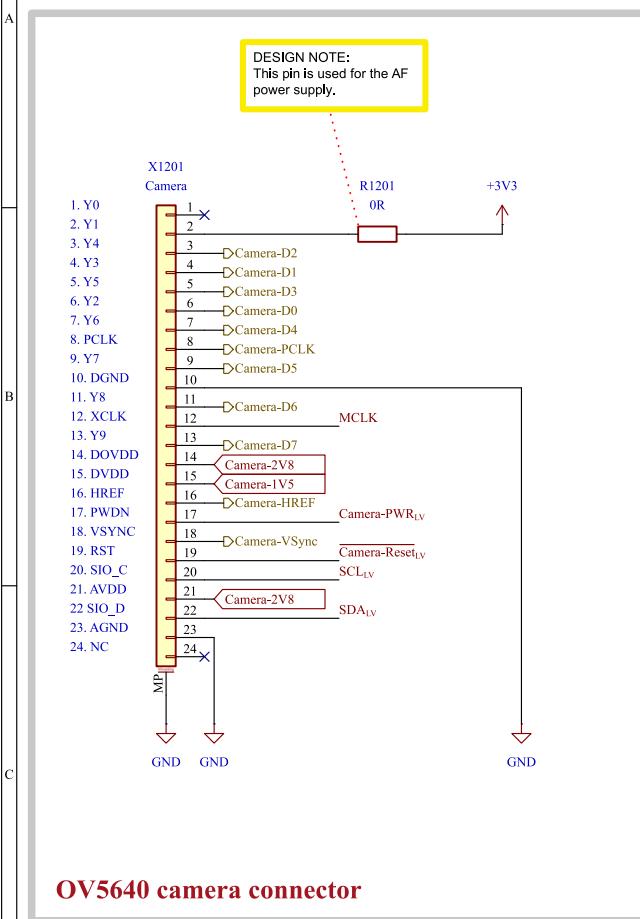
Comments:	Company:	Variant:	Git Hash:
	PyroVision	RELEASED	965ddee
Board Name: <b>Mainboard</b>		Project Name: <b>PyroVision</b>	
Sheet Title:	File Name:	Designer:	Date:
Lepton	Lepton.kicad_sch	Daniel Kampert	2025-12-19
Sheet Path:	Reviewer:	Size:	Sheet:
/Project Architecture/Lepton/		<b>A4</b>	<b>10 of 15</b>

# [11] Peripherals



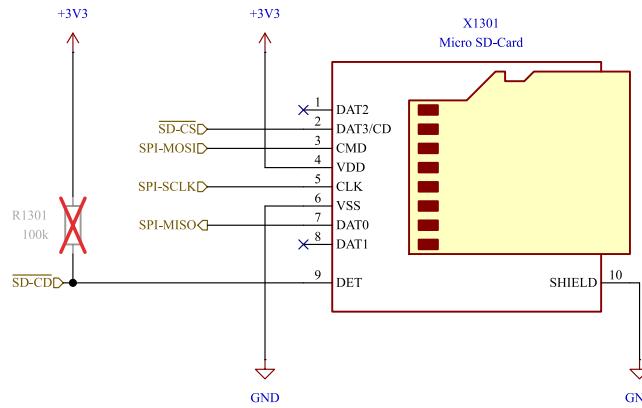
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Board Name: <b>Mainboard</b>	Project Name: <b>PyroVision</b>		
Sheet Title: Peripherals	File Name: Peripherals.kicad_sch	Designer: Daniel Kampert	Date: 2025-12-19
Sheet Path: /Project Architecture/Peripherals/	Reviewer:	Size: <b>A3</b>	Sheet: <b>11 of 15</b>

# [12] Camera



	Comments:	Company: PyroVision	Variant: RELEASED	Git Hash: 965ddee
	Board Name: <b>Mainboard</b>	Project Name: <b>PyroVision</b>		
	Sheet Title: Camera	File Name: Camera.kicad_sch	Designer: Daniel Kampert	Date: 2025-12-19    Revision: 1
	Sheet Path: /Project Architecture/Camera/			Reviewer: Size: <b>A4</b> Sheet: <b>12</b> of <b>15</b>

# [13] SD-Card



	Comments:	Company: PyroVision	Variant: RELEASED	Git Hash: 965ddee
	Board Name: <b>Mainboard</b>			Project Name: <b>PyroVision</b>
	Sheet Title: SD-Card	File Name: SD.kicad_sch	Designer: Daniel Kampert	Date: 2025-12-19    Revision: 1
	Sheet Path: <a href="#">/Project Architecture/SD-Card/</a>		Reviewer:	Size: <b>A4</b> Sheet: <b>13</b> of <b>15</b>

# [14] Display

A

A

B

B

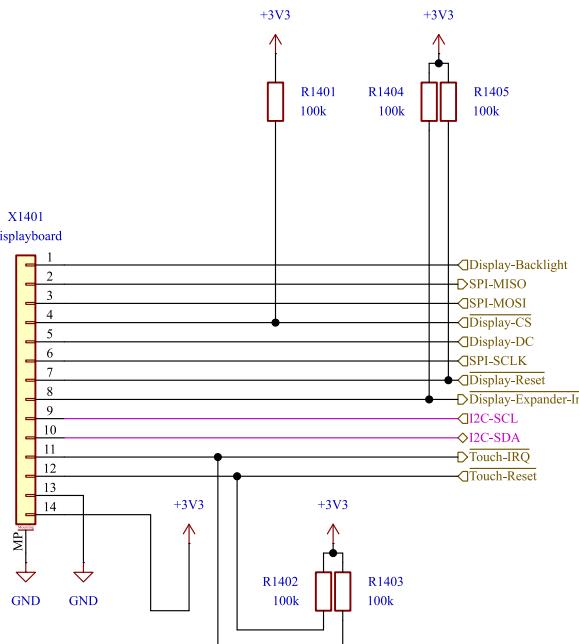
C

C

D

D

1. +3V3  
 2. GND  
 3. Touch-Reset  
 4. Touch-IRQ  
 5. SDA  
 6. SCL  
 7. Expander-Int  
 8. Display-Reset  
 9. SPI-SCLK  
 10. Display-DC  
 11. Display-CS  
 12. SPI-MOSI  
 13. SPI-MISO  
 14. Display-Backlight

X1401  
Displayboard

	Comments:	Company: PyroVision	Variant: RELEASED	Git Hash: 965ddee
	Board Name: <b>Mainboard</b>	Project Name: <b>PyroVision</b>		
	Sheet Title: Display	File Name: Display.kicad_sch	Designer: Daniel Kampert	Date: 2025-12-19    Revision: 1
	Sheet Path: /Project Architecture/Display/		Reviewer:	Size: <b>A4</b> Sheet: <b>14</b> of <b>15</b>

# [15] Revision History

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B					B
C					C
D					D
		<p>Comments:</p>	<p>Company: PyroVision</p>	<p>Variant: RELEASED</p>	<p>Git Hash: 965ddee</p>
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		<p>Sheet Path: /Revision History/</p>		<p>Reviewer:  </p>	<p>Revision: 1</p>
				<p>Size: <b>A4</b></p>	<p>Sheet: <b>15 of 15</b></p>