

Input Protection

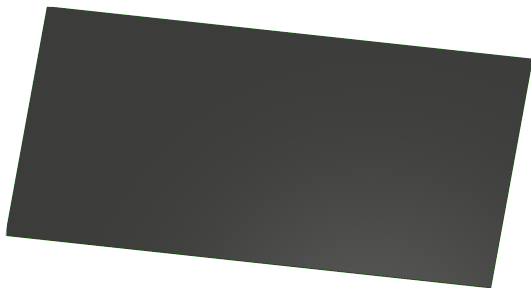
Variant: DRAFT

2026-02-06

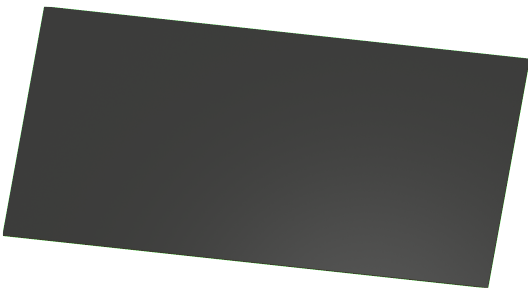
Rev + (Unreleased)

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TOP VIEW



BOTTOM VIEW



NOTES

Comment

Not fitted components are marked as **X**

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: 06-Feb-2026

DESIGN CONSIDERATIONS

DESIGN NOTE:
Example text for
informational design
notes.

DESIGN NOTE:
Example text for
debug notes.

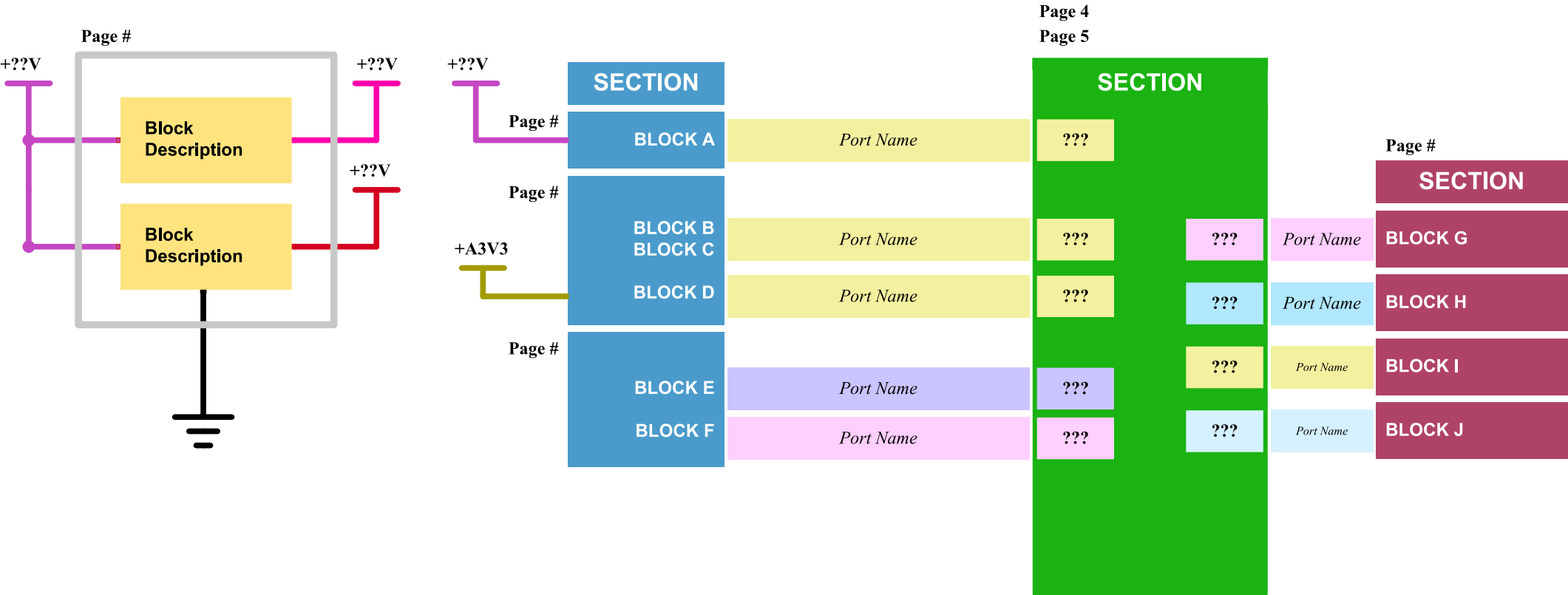
DESIGN NOTE:
Example text for
cautionary design
notes.

DESIGN NOTE:
Example text for
critical design
notes.

LAYOUT NOTE:
Example text for
critical layout
guidelines.

	Comments:	Company: University of Newcastle		Variant: DRAFT	Git Hash: a736dc4
	Sheet Title:	Board Name: Input Protection		Project Name: Assignment 1	
	Sheet Path: /	File Name: Input-Protection.kicad_sch	Designer: R. HICKS	Date: 2025-01-12	Revision: + (Unreleased)
			Reviewer:	Size: A3	Sheet: 1 of 4

[2] Block Diagram

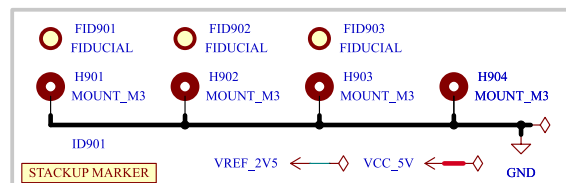
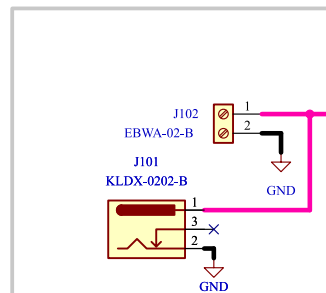


Target specifications:	
Input voltage:	?? - ?? V
Spec 2	??
Spec 3	??
Spec 4	??

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	Sheet Title: Block Diagram	File Name: Block Diagram.kicad_sch	Designer: R. HICKS	Date: 2025-01-12	Revision: + (Unreleased)	
	Sheet Path: /Block Diagram/		Reviewer:	Size: A3	Sheet: 2 of 4	

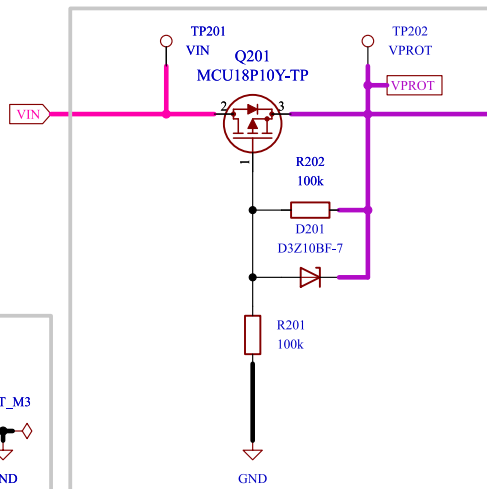
[3] Schematic

1. INTERCONNECTS

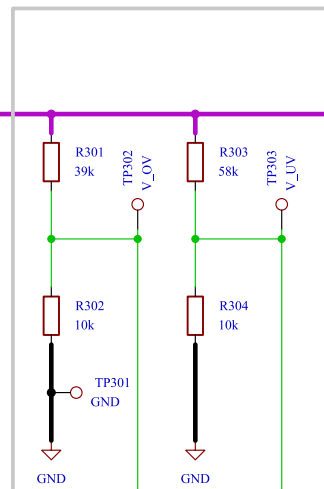


9. ERC & MISC.

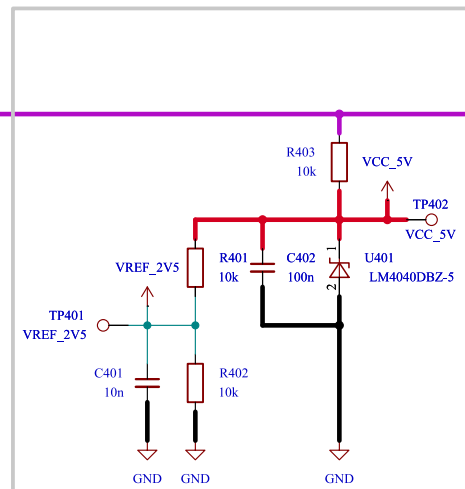
2. REVERSE POLARITY PROTECTION



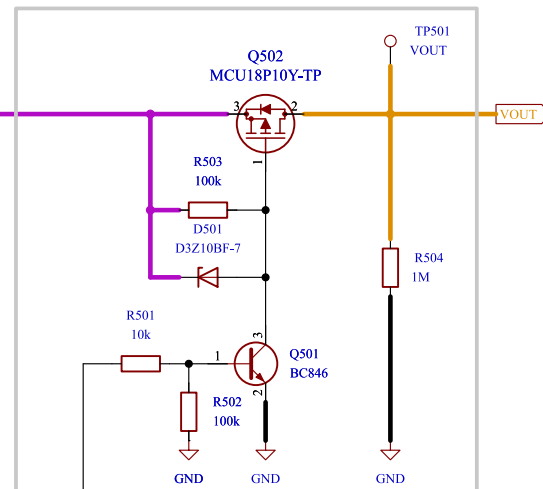
3. VOLTAGE SENSING



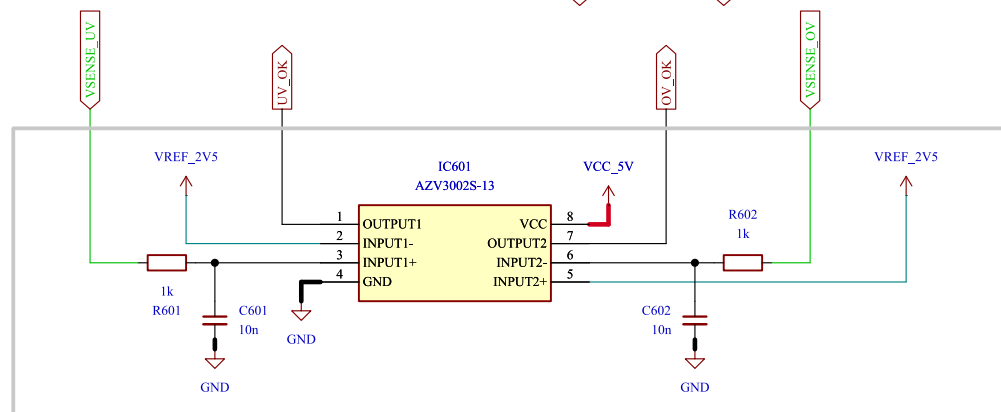
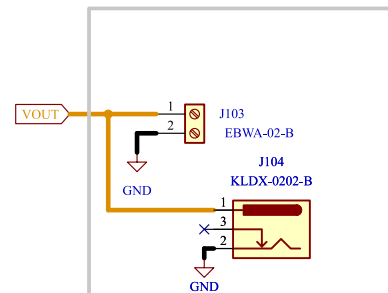
4. 5V & 2V5 VREF



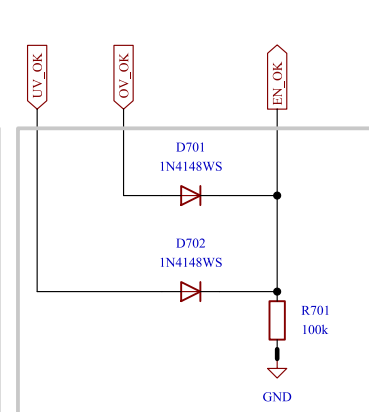
5. PASS ELEMENT



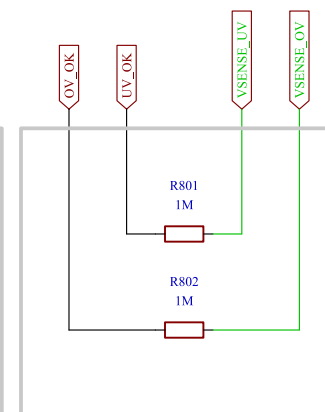
1. INTERCONNECTS (CONT.)



6. OV & UV COMPARATOR



7. SUMMING



8. HYSTERESIS

	Comments:		Company: University of Newcastle		Variant: DRAFT	Git Hash: a736dc4
			Board Name: Input Protection		Project Name: Assignment 1	
	Sheet Title: Schematic	File Name: Schematic.kicad_sch	Designer: R. HICKS	Date: 2025-01-12	Revision: + (Unreleased)	
	Sheet Path: /Schematic/		Reviewer:	Size: A3	Sheet: 3 of 4	

[4] Revision History

	Comments:	Company: University of Newcastle		Variant: DRAFT	Git Hash: a736dc4
		Board Name: Input Protection		Project Name: Assignment 1	
	Sheet Title: Revision History	File Name: Revision History.kicad_sch	Designer: R. HICKS	Date: 2025-01-12	Revision: + (Unreleased)
	Sheet Path: /Revision History/		Reviewer:	Size: A4	Sheet: 4 of 4