

Module

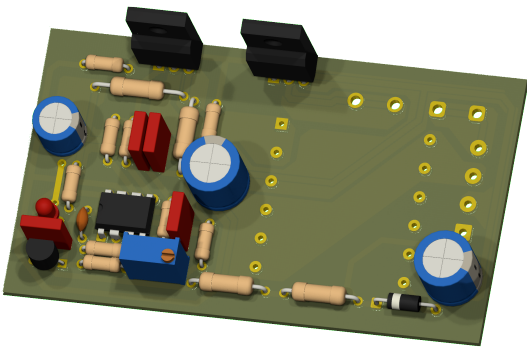
Rev + (Unreleased)

Variant: PRELIMINARY

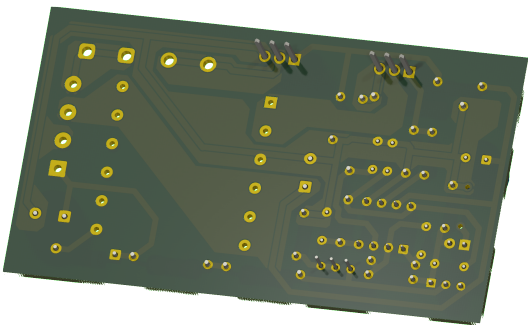
2025-12-14

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TOP VIEW



BOTTOM VIEW



NOTES

Comment

Not fitted components are marked as X

- DRAFT - Early concept stage, schematic drafted.
- PRELIMINARY - Minor schematic changes are expected, ready for layout planning.
- CHECKED - DRC completed, schematic and layout ready for review.
- RELEASED - Design ready for manufacturing.

Date: 14-Dec-2025

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.

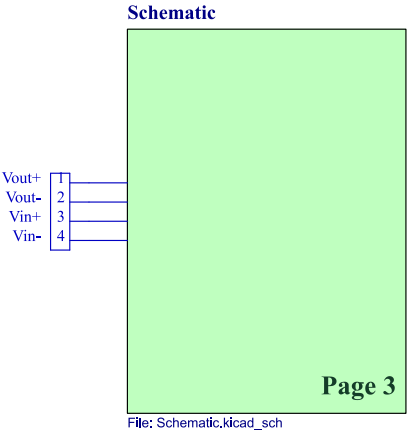
DESIGN NOTE: Example text for critical design notes.

LAYOUT NOTE: Example text for critical layout guidelines.

| | | | | | |
|--|------------------|--|-----------------|--|-----------------------------|
| | Comments: | Company: FR | | Variant: PRELIMINARY | Git Hash: 95cd2d0 |
| | | Board Name: Module | | Project Name: Step-up module 12:450 V | |
| | Sheet Title: | File Name: StepUp_module_12to450V.kicad_sch | Designer: FR | Date: 2025-01-12 | Revision: + (Unreleased) |
| | Sheet Path: / | | Reviewer: NA | Size: A3 | Sheet: 1 of 4 |

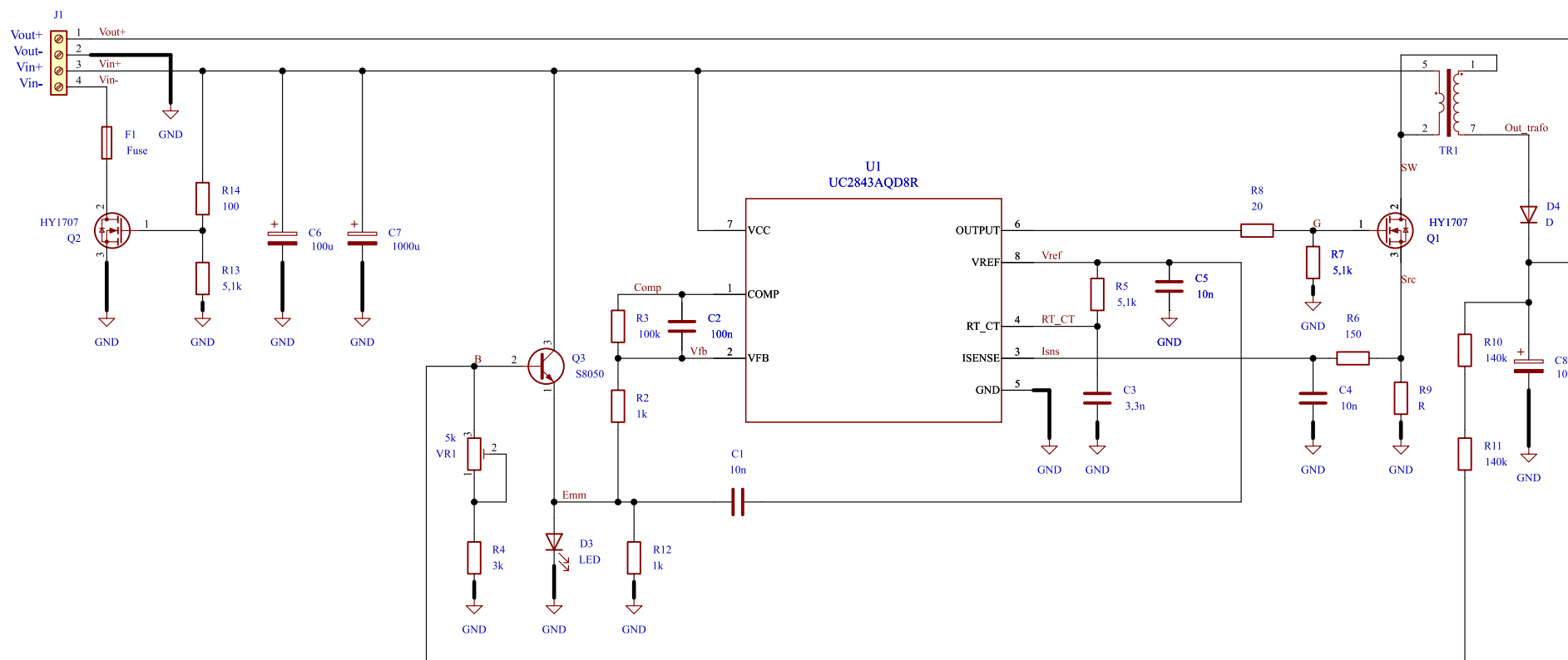
[2] Block Diagram

MODULE INTERFACE:
Vin: 9 V to 2 V according to
AliExpress product page
Vout: 200 V to 450 V,
adjustable through VR1



| | | | | | | |
|--|--------------------------------|--|---------------------------------------|-----------------|--|-----------------------------|
| | Comments: AliExpress module | | Company: FR | | Variant: PRELIMINARY | Git Hash: 95cd2d0 |
| | | | Board Name: Module | | Project Name: Step-up module 12:450 V | |
| | Sheet Title: Block Diagram | | File Name: Block Diagram.kicad_sch | Designer: FR | Date: 2025-01-12 | Revision: + (Unreleased) |
| | Sheet Path: /Block Diagram/ | | | Reviewer: NA | Size: A4 | Sheet: 2 of 4 |

[3] Schematic



Comments:
AliExpress module

Company:
FR

Variant:
PRELIMINARY

Git Hash:
95cd2d0

Board Name:
Module

Project Name:
Step-up module 12:450 V

Sheet Title:
Schematic

File Name:
Schematic.kicad_sch

Designer:
FR

Date:
2025-01-12

Revision:
+ (Unreleased)

Sheet Path:
/Block Diagram/Schematic/

Reviewer:
NA

Size:
A4

Sheet:
3 of **4**

[4] Revision History

| | | | | | |
|--------------------|------------------|----------------------------|-------------|--------------------------------|----------------|
| | Comments: | Company: | Variant: | Git Hash: | |
| | "Comment 1" | FR | PRELIMINARY | 95cd2d0 | |
| | "Comment 2" | Board Name: | | Project Name: | |
| | "Comment 3" | Module | | Step-up module 12:450 V | |
| "Comment 4" | Sheet Title: | File Name: | Designer: | Date: | Revision: |
| | Revision History | Revision History.kicad_sch | FR | 2025-01-12 | + (Unreleased) |
| | Sheet Path: | Reviewer: | Size: | Sheet: | |
| /Revision History/ | | NA | A4 | 4 of 4 | |