USB IO Extender

Variant: No variant

2025-03-26
Rev 2

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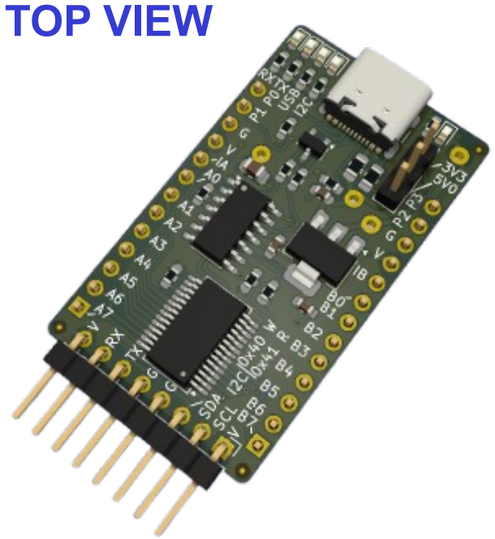
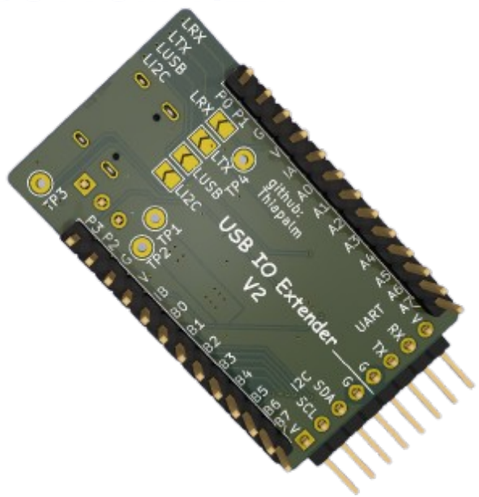
RELEASED

TOP VIEW



BOTTOM VIEW



NOTES

Add a comment here

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.

No variant 2025-03-25

DESIGN CONSIDERATIONS

DESIGN NOTE: Example text for informational design notes.

DESIGN NOTE: Example text for debug notes.

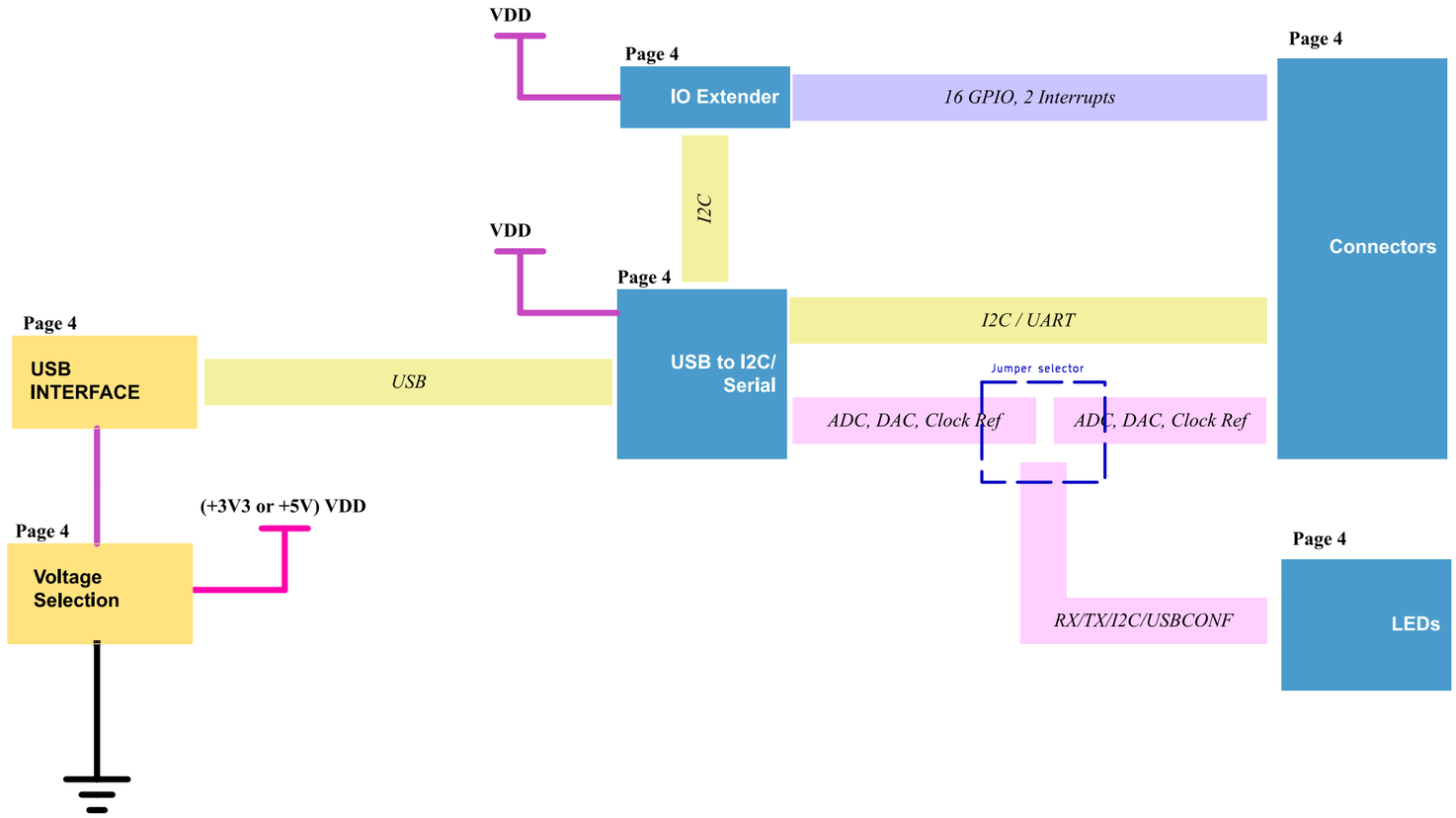
DESIGN NOTE: Example text for cautionary design notes.

DESIGN NOTE: Example text for critical design notes.

LAYOUT NOTE: Example text for critical layout guidelines.

Comments:	Company: thiago.palmieri@adastra.aleeas.com		Variant: No variant	
	Board Name: USB IO Extender		Project Name: USB IO Extender	
Sheet Title: Cover Page	File Name: IOExtender.kicad_sch	Designer: Thiago Palmieri	Date: Last Modified Date	Revision: 2
Sheet Path: /		Reviewer: Thiago Palmieri	Size: A3	Sheet: 1 of 5

[2] Block Diagram

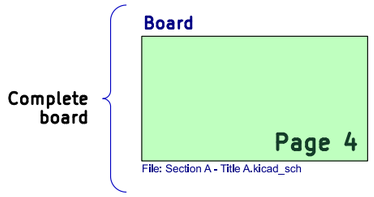


Target specifications:

Input voltage:	5V USB
Board Layers	2

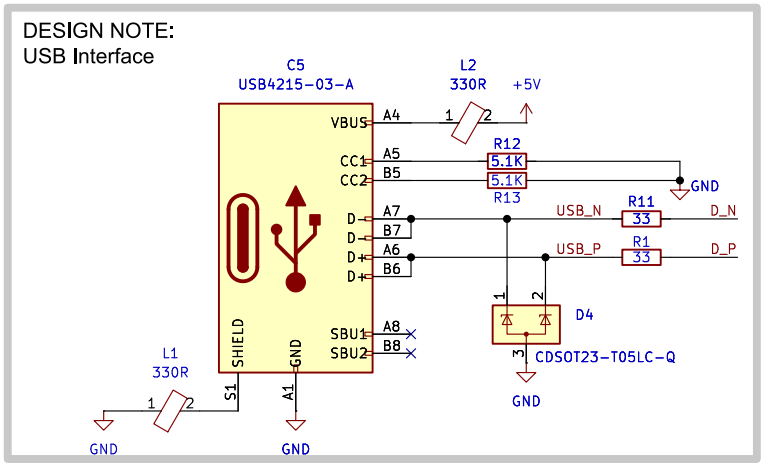
Comments:	Company: thiago.palmieri@adastra.aleeas.com			Variant: No variant	
	Board Name: **USB IO Extender**			Project Name: **USB IO Extender**	
Sheet Title: Block Diagram	File Name: Block Diagram.kicad_sch	Designer: Thiago Palmieri		Date: Last Modified Date	Revision: 2
Sheet Path: /Block Diagram/		Reviewer: Thiago Palmieri		Size: **A3**	Sheet: **2** of **5**

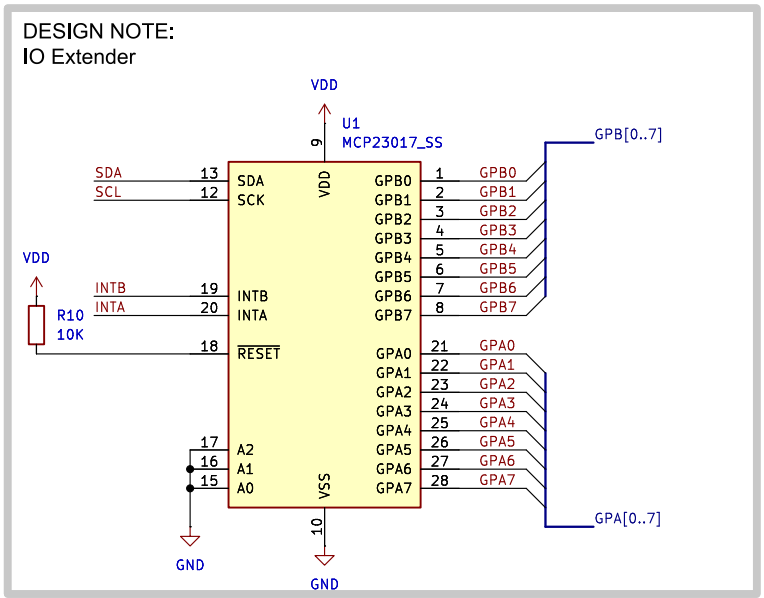
[3] Project Architecture

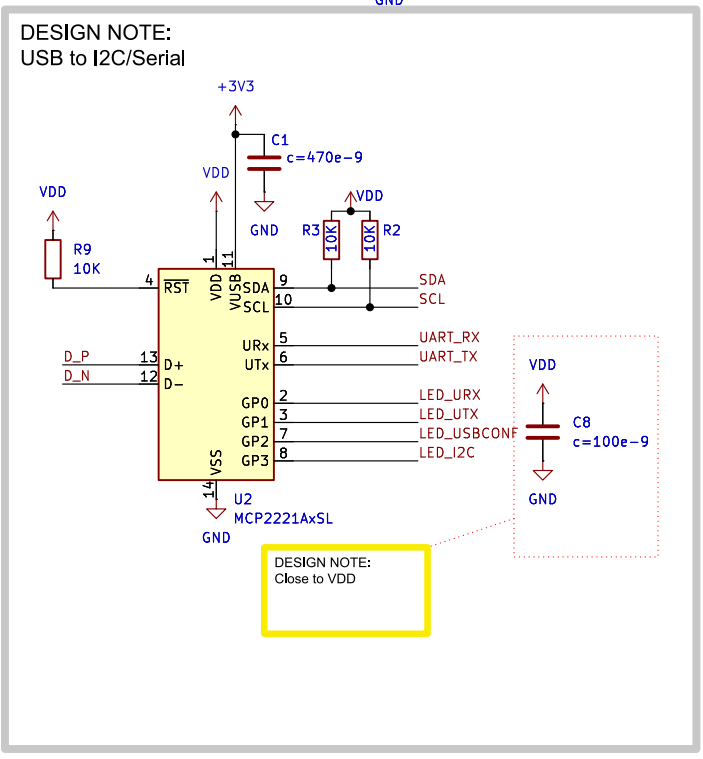


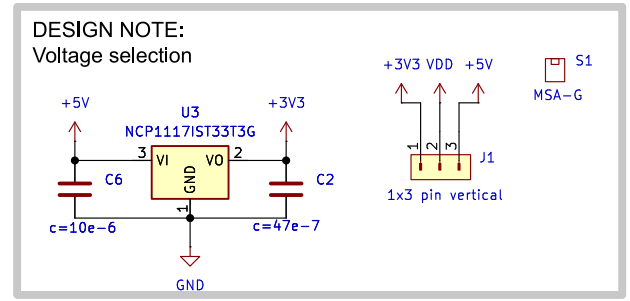
	Comments:	Company: thiago.palmieri@adastra.aleeas.com		Variant: No variant	
		Board Name: **USB IO Extender**		Project Name: **USB IO Extender**	
	Sheet Title: Project Architecture	File Name: Project Architecture.kicad_sch	Designer: Thiago Palmieri	Date: Last Modified Date	Revision: 2
	Sheet Path: /Project Architecture/		Reviewer: Thiago Palmieri	Size: **A3**	Sheet: **3** of **5**

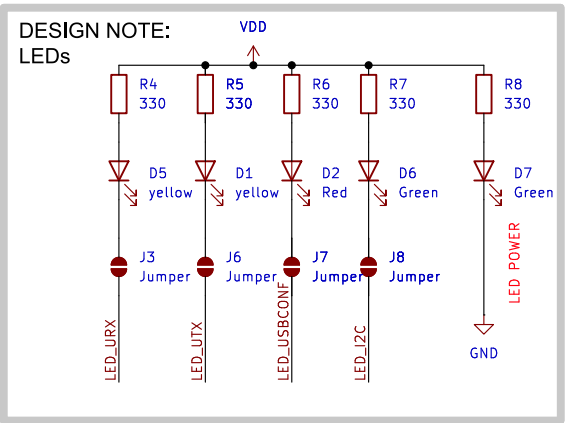
[4] Board

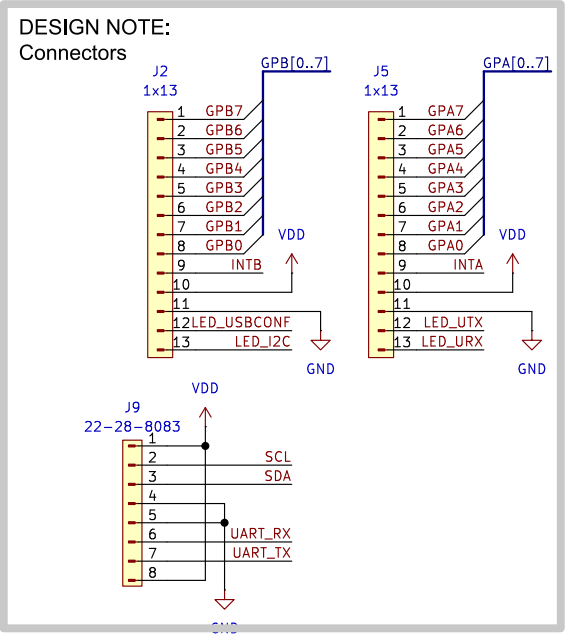












	Comments: AN5346; STM32G474 Datasheet p.81; J. Pieper ADC investigation	Company: thiago.palmieri@adastra.aleeas.com	Variant: No variant	
		Board Name: **USB IO Extender**	Project Name: **USB IO Extender**	
	Sheet Title: Board	File Name: Section A - Title A.kicad_sch	Designer: Thiago Palmieri	Date: Last Modified Date / Revision: 2
	Sheet Path: /Project Architecture/Board/	Reviewer: Thiago Palmieri	Size: **A4**	Sheet: **4** of **5**

[5] Revision History

09.02.2016 - V1 Revision
Variant: No variant

- First Draft
- Added MCP23017 GPIOs on the header
- Added Jumper selector on LEDs
- Added Output voltage selection
- Added MCP2221 serial on Header
- Added MCP2221 I2C on Header

26.03.2025 - V2 Revision
Variant: No variant

- Changed conmnector to USB-C

DD.MM.YYYY - xxx Revision
Variant: xxx

DD.MM.YYYY - xxx Revision
Variant: xxx

Comments:	Company: thiago.palmieri@adastra.aleeas.com		Variant: No variant	
	Board Name: **USB IO Extender**		Project Name: **USB IO Extender**	
Sheet Title: Revision History	File Name: Revision History.kicad_sch	Designer: Thiago Palmieri	Date: Last Modified Date	Revision: 2
Sheet Path: /Revision History/		Reviewer: Thiago Palmieri	Size: **A4**	Sheet: **5** of **5**