MachX02 Development Board

2025-05-23
Rev 1.0

Variant: Evaluation

TOP VIEW

3D render of your PCB here (Top View)

BOTTOM VIEW

3D render of your PCB here (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.

Evaluation 2025-06

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.

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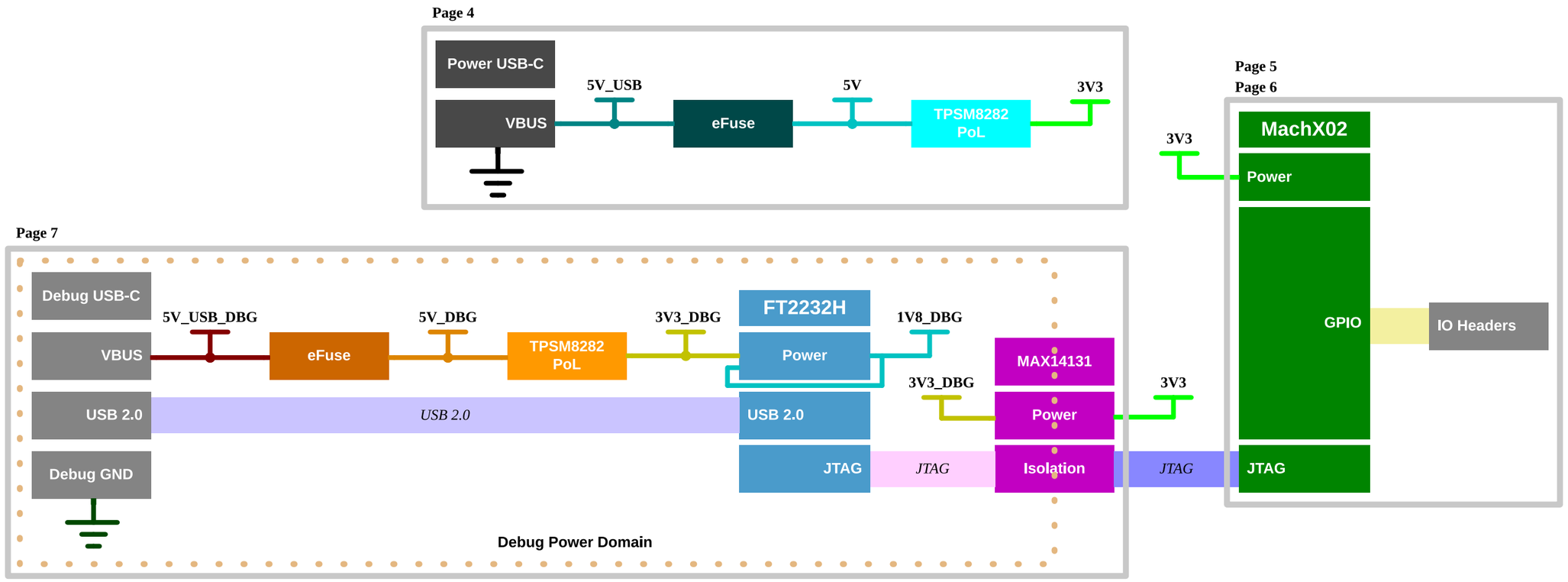
Sheet: /
File: machxo2_design_kicad.kicad_sch

Title: Cover Page

Size: A3	Date: Last Modified Date	**Rev: 1.0**
KiCad E.D.A. 9.0.2		Id: 1/10

[2] Block Diagram



Target specifications:

Input voltage:	4 - 5.5 V
5V	5V, 3A
3V3	3.3V, 1A
IO Level	3.3V

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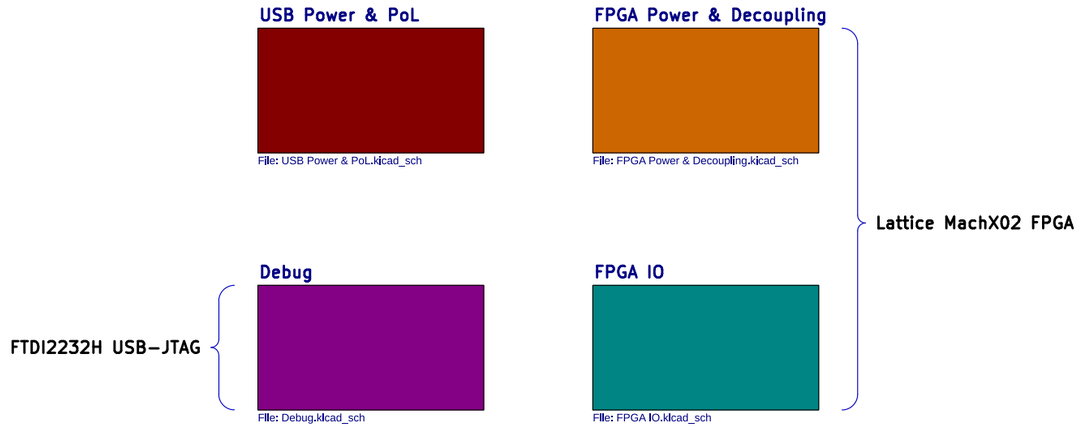
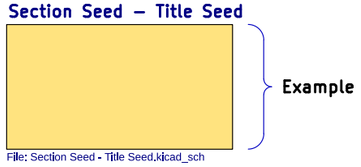
Sheet: /Block Diagram/ File: Block Diagram.kicad_sch		
Title: Block Diagram		
Size: A3	Date: Last Modified Date	**Rev: 1.0**
KiCad E.D.A. 9.0.2		Id: 2/10

[3] Project Architecture





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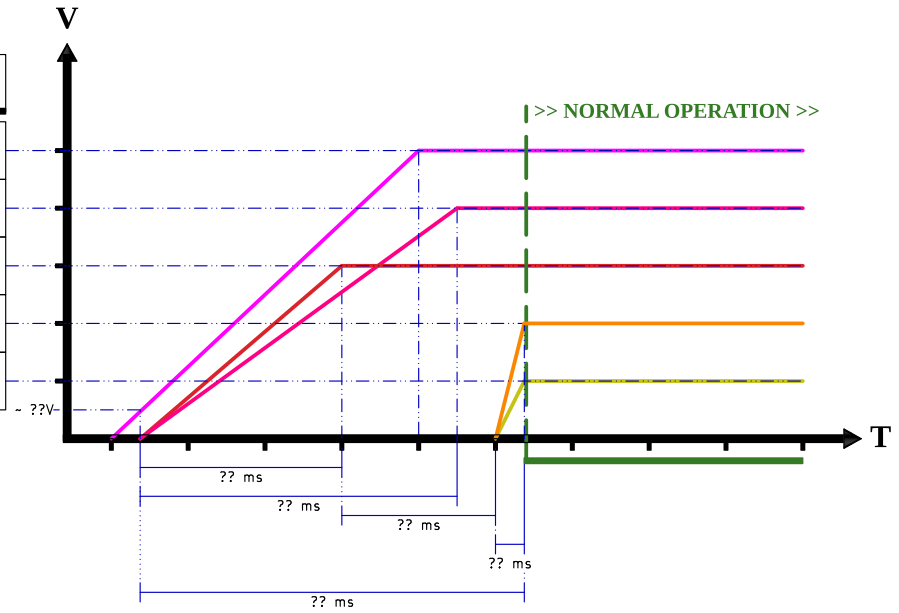
Sheet: /Project Architecture/
File: Project Architecture.kicad_sch

Title: Project Architecture

Size: A3	Date: Last Modified Date	**Rev: 1.0**
KiCad E.D.A. 9.0.2		Id: 3/10

[8] Power - Sequencing

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



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Sheet: /Power – Sequencing/
File: Power – Sequencing.kicad_sch

Title: Power – Sequencing

Size: A4	Date: Last Modified Date	**Rev: 1.0**
KiCad E.D.A. 9.0.2		Id: 8/10

[9] Revision History

DD.MM.YYYY - xxx Revision
Variant: xxx

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DD.MM.YYYY - xxx Revision
Variant: xxx

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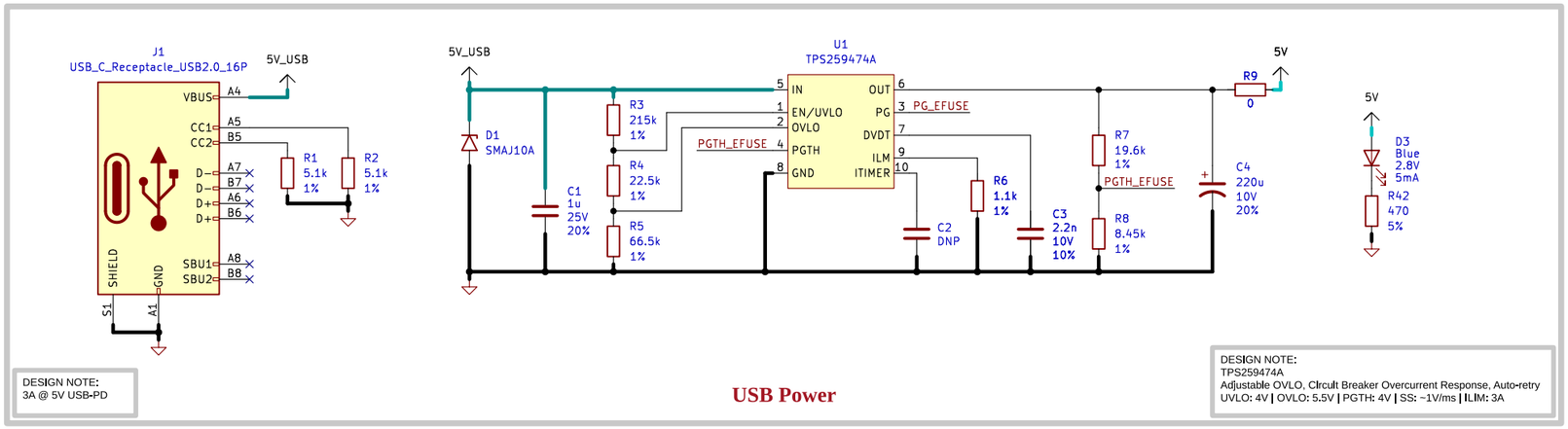
Sheet: /Revision History/
File: Revision History.kicad_sch

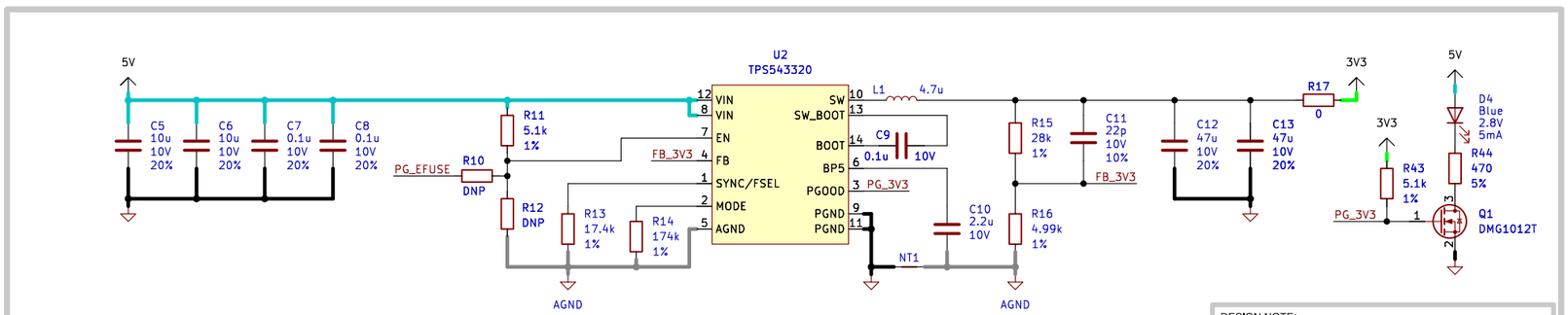
Title: Revision History

Size: A4	Date: Last Modified Date	**Rev: 1.0**
KiCad E.D.A. 9.0.2		Id: 9/10

[4] USB Power & PoL



USB Power



3.3V POL

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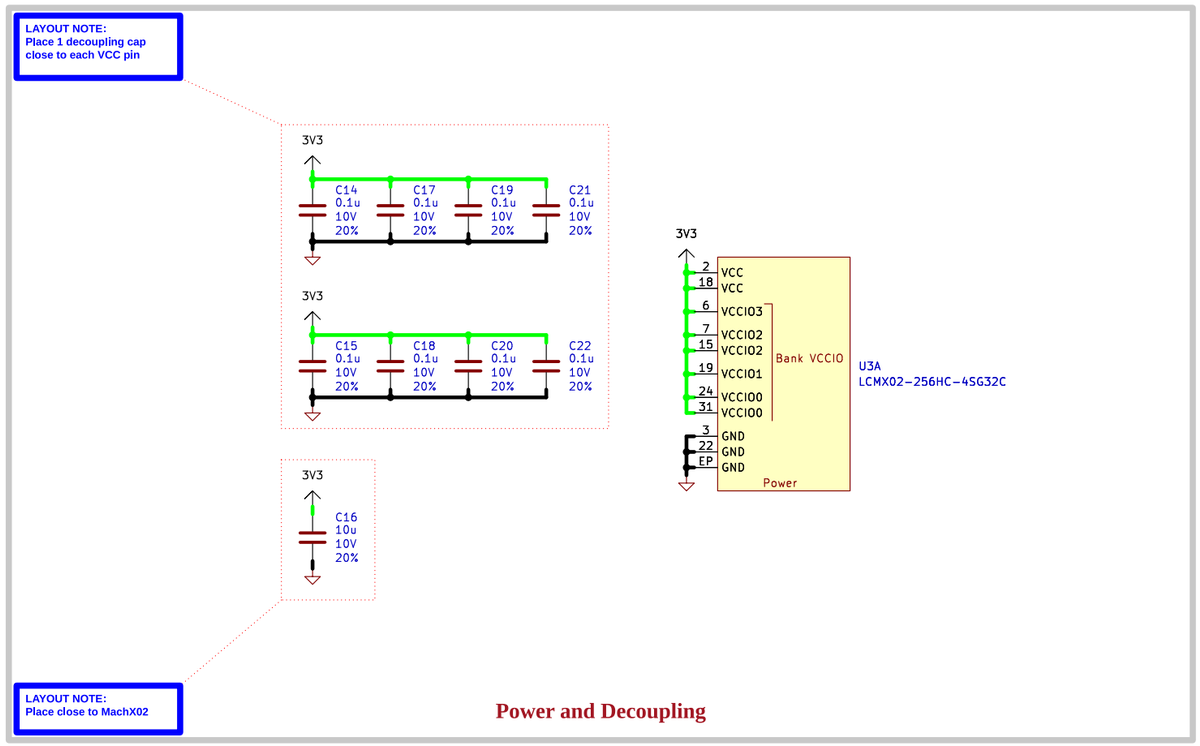
Sheet: /Project Architecture/USB Power & PoL/		
File: USB Power & PoL.kicad_sch		
Title: USB Power & PoL		
Size: A3	Date: Last Modified Date	**Rev: 1.0**
KiCad E.D.A. 9.0.2		Id: 4/10

[5] FPGA Power & Decoupling



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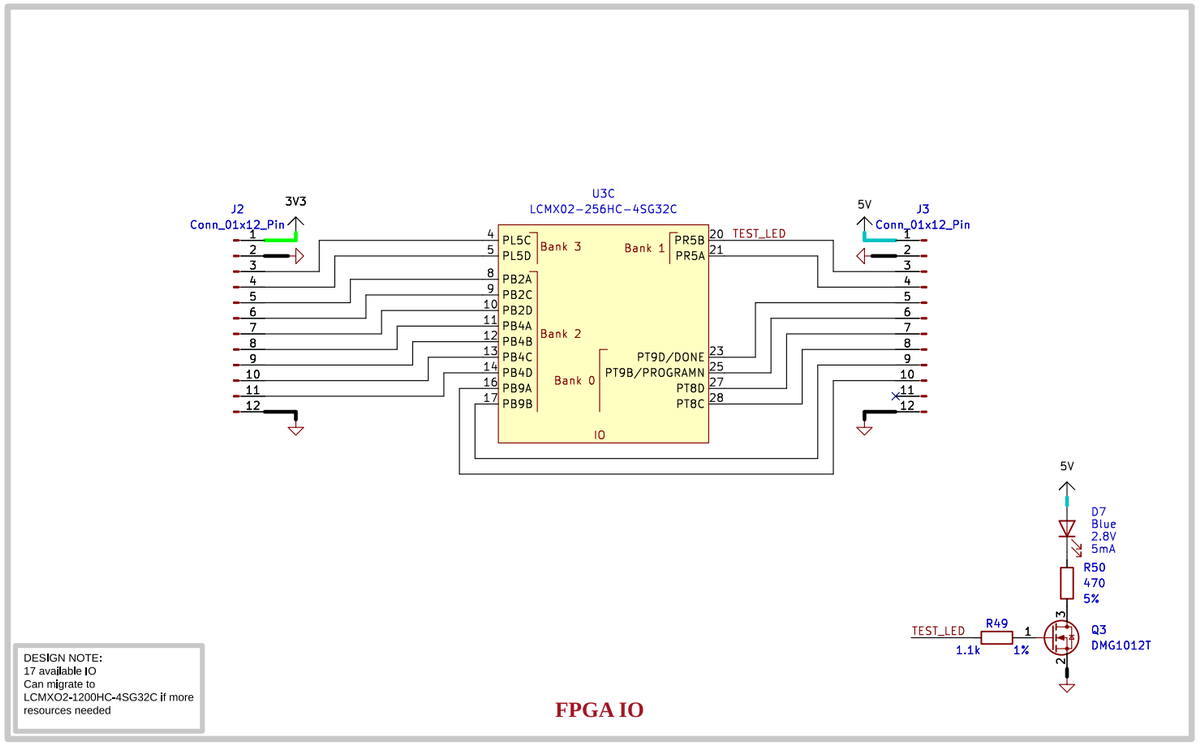
Sheet: /Project Architecture/FPGA Power & Decoupling/		
File: FPGA Power & Decoupling.kicad_sch		
Title: Sheet Title A		
Size: A3	Date: Last Modified Date	**Rev: 1.0**
KiCad E.D.A. 9.0.2		Id: 5/10

[6] FPGA IO



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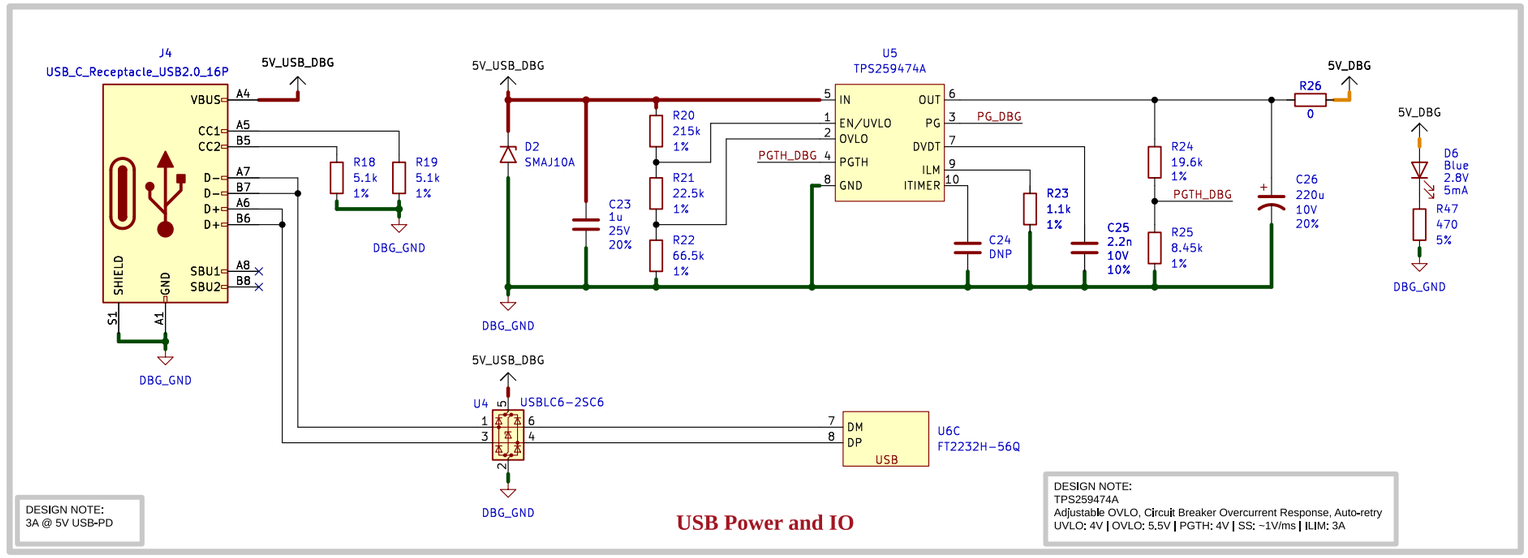
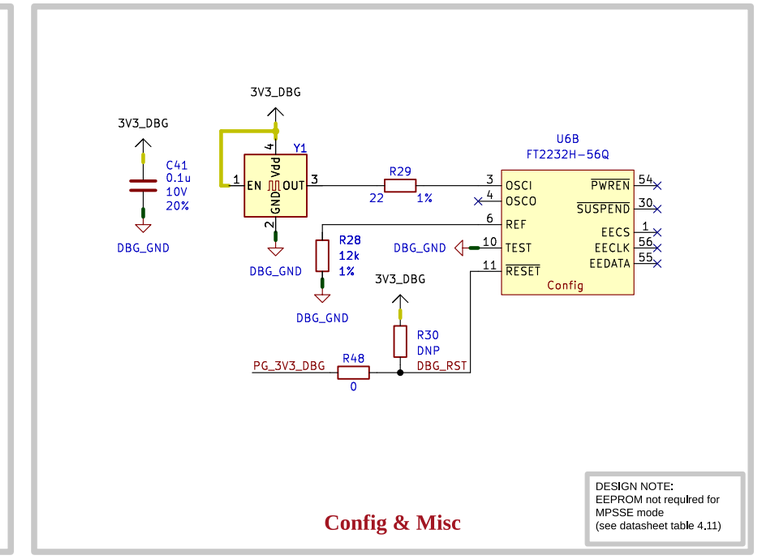
Sheet: /Project Architecture/FPGA IO/	
File: FPGA IO.kicad_sch	
Title: Sheet Title A	
Size: A3	Date: Last Modified Date
KiCad E.D.A. 9.0.2	Id: 6/10
	Rev: 1.0

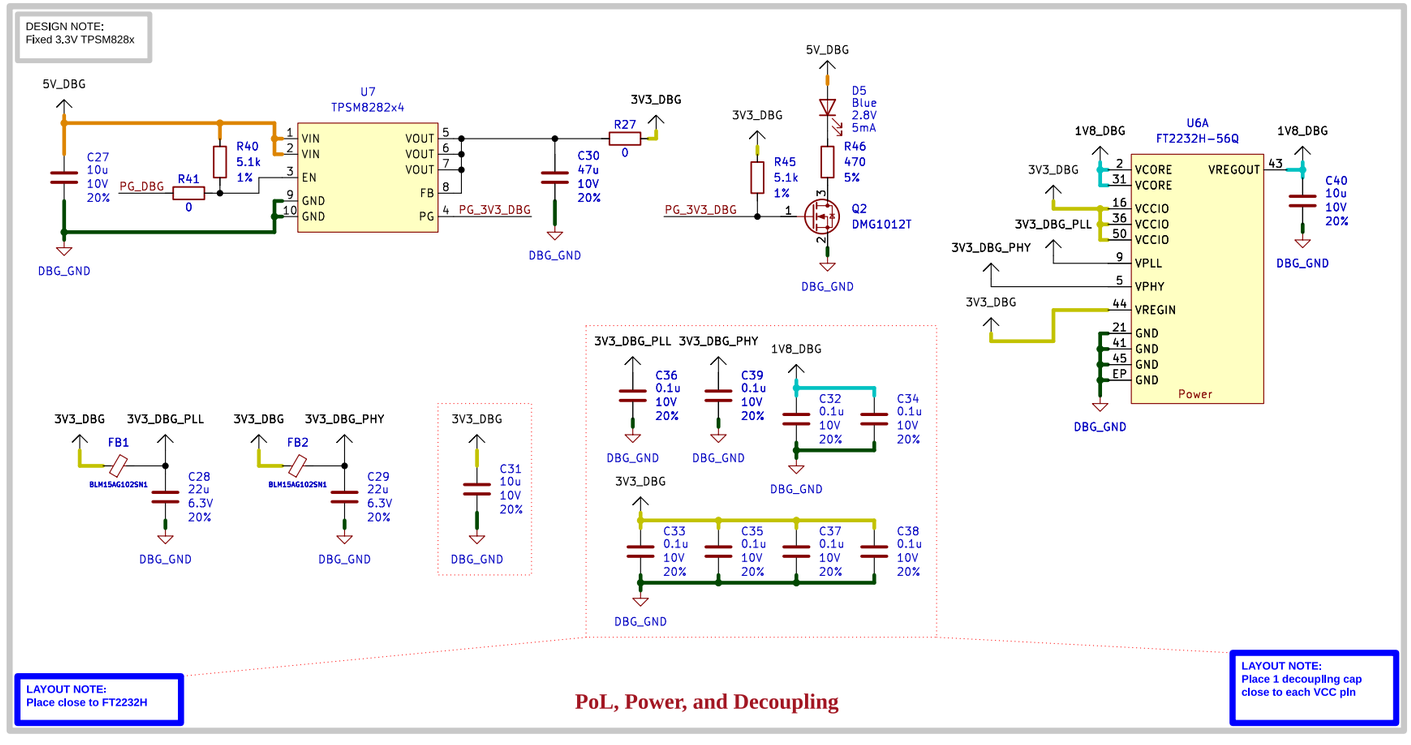
[7] Debug



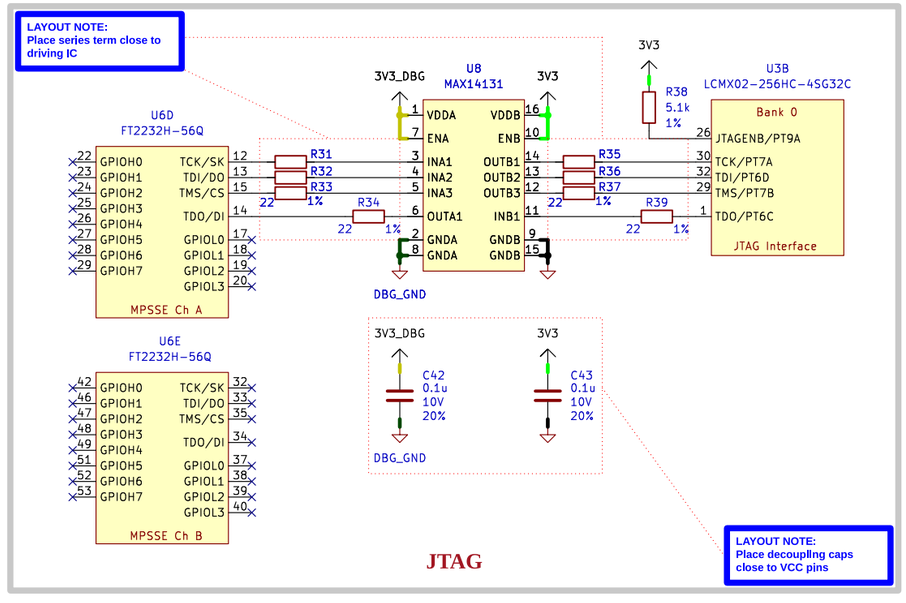
USB Power and IO



Config & Misc



PoL, Power, and Decoupling



JTAG

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Sheet: /Project Architecture/Debug/
File: Debug.kicad_sch

Title: Sheet Title B

Size: A3	Date: Last Modified Date	**Rev: 1.0**
KiCad E.D.A. 9.0.2		Id: 7/10

[99] Section Seed - Title Seed

DESIGN NOTE:
blablabla

DESIGN NOTE:
blabla

DESIGN NOTE:
blabla

LAYOUT NOTE:
blabla

Block Description

Block Description

Block Description

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References:

Flexible I/O worked examples
Flexible I/O source configuration

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Sheet: /Project Architecture/Section Seed – Title Seed/
File: Section Seed – Title Seed.kicad_sch

Title: Sheet Title B

Size: A3	Date: Last Modified Date	**Rev: 1.0**
KiCad E.D.A. 9.0.2		Id: 99/10