Olimex Extension camIO v0.1

2024-12-10

Intergalaktik d.o.o.

Change project informations under.
File>>Schamatic Setup>>Text Variables

!!
Olimex board is delivering MAX 2.5V on connector.
You can use 2.5V output signals for 3.3V.
Be carefull FPGA input only tolerate MAX 2.5V!
!!

!!
VCC input is connected over 500mA resetable fuse!
Maximum current for VCC is set to 500mA.
It may be possible to drain more current but
you will need add different FUSE and use it at your own risk!
3.3V step up is limited to 400mA
Idea behind limits is that you can use all 3 extensions slots
at once without any risk od draining to much!
!!

!!
There is same pinout part for 5V step up.
So you can have 5V with just one IC change.
For more details check Power page.
!!

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A1 Dedicated clock input pins are:
IO_SB_A8: CLK0
IO_SB_A7: CLK1
IO_SB_A6: CLK2
IO_SB_A5: CLK3
You can use them all as differential inputs.

We are not able to use any on extension boards.

It is also possible to use any GPIO as a clock input.
The only thing to note here is that the signal must be routed via the routing structure to the entry point of the global clock mesh. These paths are longer than via the dedicated clock pins, which is why it is essential to pay attention to clock skew.

TOP VIEW

Dimension
File: dimension.kicad_sch

Main Sheet
File: main.kicad_sch

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Sheet: /
File: camIO.kicad_sch
Title: Olimex Extension camIO v0.1
Size: A4 | Date: 2024-12-02 | **Rev: v0.1**
KiCad E.D.A. 8.0.4 | Id: 1/4

Main Page

!!!
Olimex board is delivering MAX 2.5V on connector.
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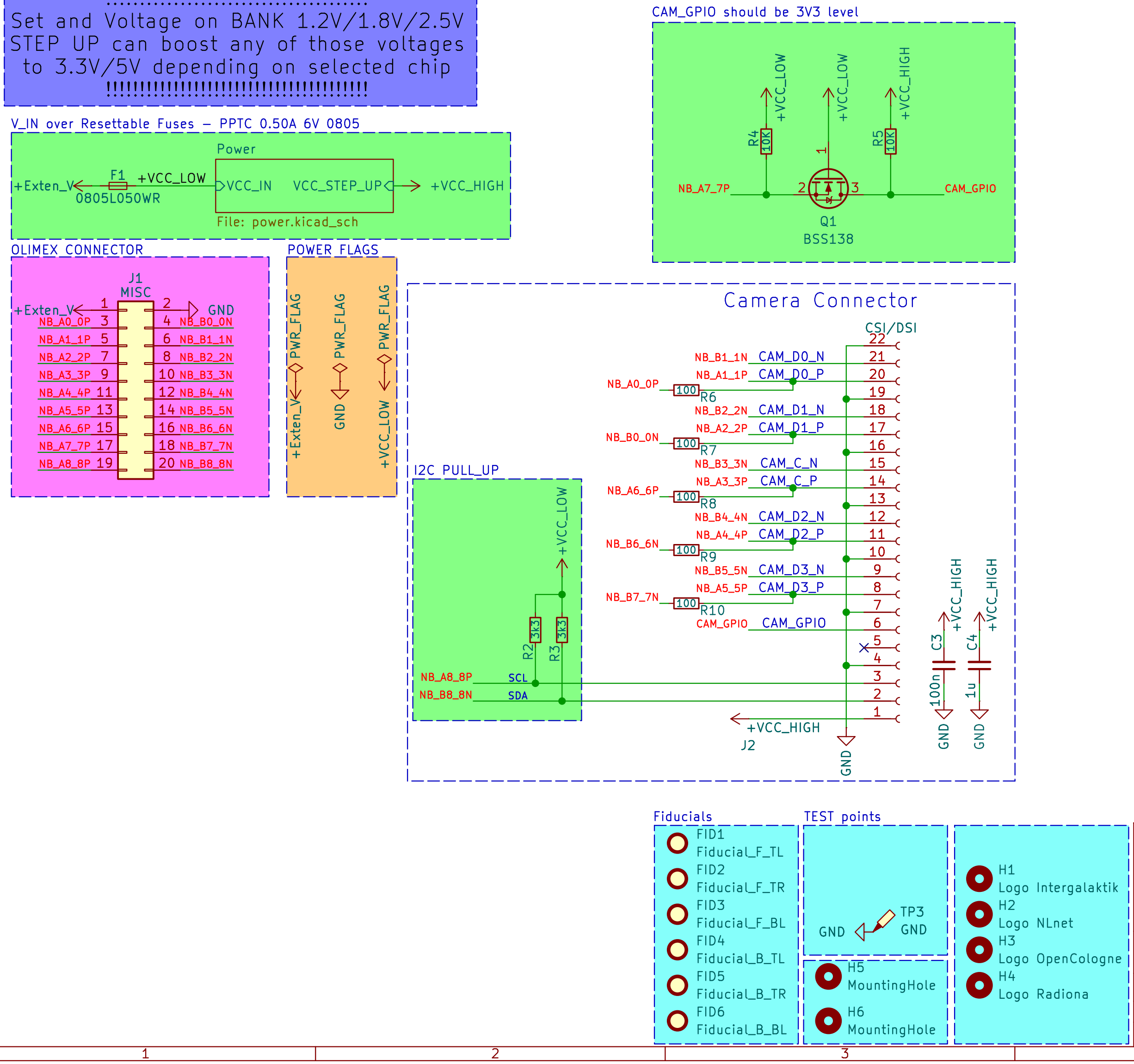
Be carefull FPGA input only tolerate MAX 2.5V!
!!!

!!!
Set and Voltage on BANK 1.2V/1.8V/2.5V
STEP UP can boost any of those voltages
to 3.3V/5V depending on selected chip
!!!



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Sheet: /Main Sheet/
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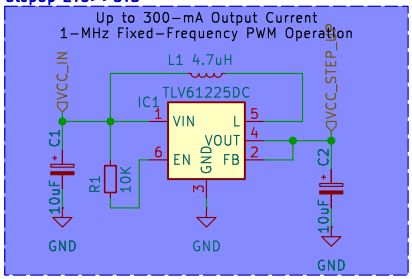
Power Page

StepUp 2V5>>3V3



Use TPS61225DC for 2.5V>>3.3V
Use TPS61222DC for 2.5V>>5V

CERN−OHL−S v2
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Sheet: /Main Sheet/Power/
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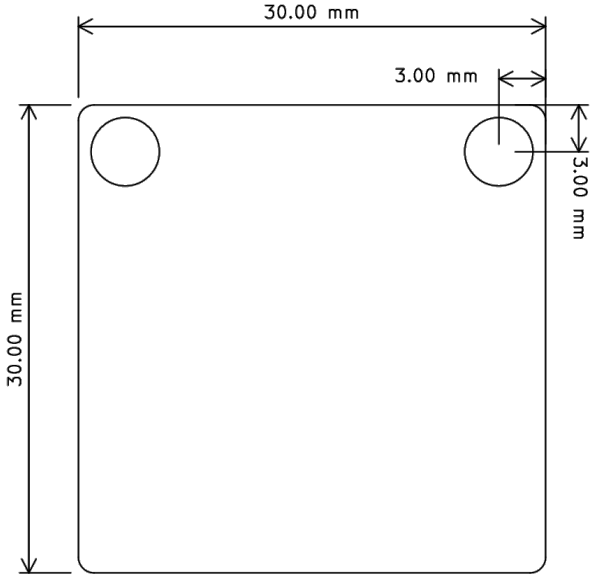
Dimension Page



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Sheet: /Dimension/
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