

Intergalaktik d.o.o. License: CERN-OHL-S v2 Year: 2025.

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!

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

US2VBUS

+5V

GND

1N914

1N914

D9 1N914

USB2_DEVICE_D-

USB2_DEVICE_D+

D+ 1.5k pullp for

full speed device

USB2_FPGA_D+

D- 1.5k pullp for

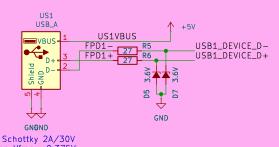
mode USB1.1

US2 USB_A

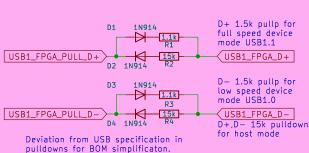
■VBUS D+

GNOND

USB2_FPGA_PULL_D+



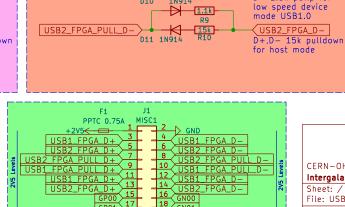
D5,D7: Schottky 2A/30V Low drop Vfmax=0.375V Parts reduction: Only D5 is required. D6, D13 can be 1206 1A polyfuses or 0-ohm/2A jumpers



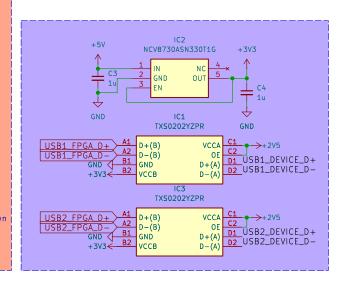
should be 12k but 15k is used. StepUp 2V5>>3V3 Up to 300-mA Output Current 1-MHz Fixed-Frequency PWM Operation +3V3 GND +5V +2V5

GND

With series diode, correct value R2 R4







CERN-OHL-S v2

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Sheet: /

File: USB.kicad_sch

Title: USB v0.1

Size: A4 Date: 2025-27-03 Rev: v0.1 KiCad E.D.A. 9.0.0 ld: 1/1

GND