

# Root [1]

Technical Sheet Only!  
Please refer to the subsequent sheets for schematic

Power



File: power.kicad\_sch

Sensor



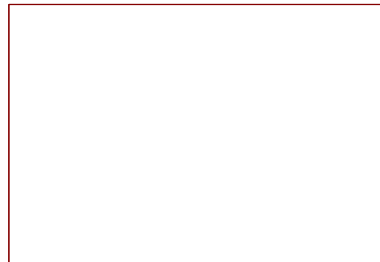
File: Sensor.kicad\_sch

System



File: System.kicad\_sch

eFuse



File: efuse.kicad\_sch

Czech Technical University in Prague

Sheet: /

File: VoxLink.kicad\_sch

**Title: Root**

Size: A4

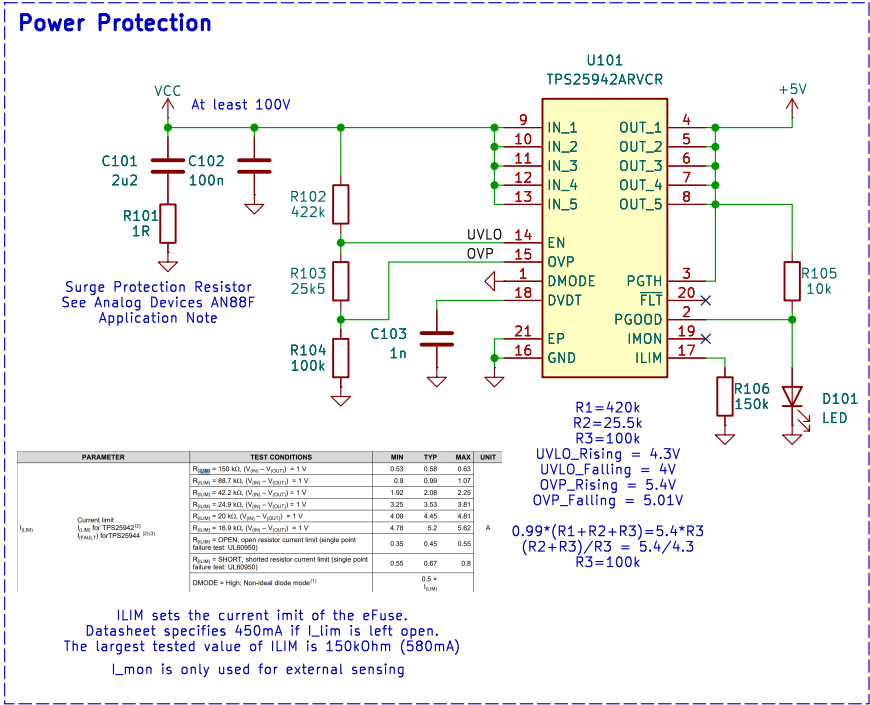
Date: 2025-11-17

Rev: 1.0

KiCad E.D.A. 9.0.4

Id: 0/5

# eFuse [1]



Czech Technical University in Prague

Sheet: /eFuse/

File: efuse.kicad\_sch

Title: eFuse

Size: A4

Date: 2025-12-04

Rev: 1.0

KiCad E.D.A. 9.0.4

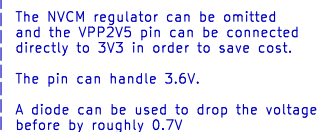
Id: 1/5

A	
B	
C	
D	

B	
	C



## D



Multiple net names are used to indicate the I/O banks throughout the schematic



**Title: Power**

Rev: 1.0

Id: 2/5

The FPGA wakes up after roughly 10ms, however, the memory takes 20ms to boot. We need to delay the FPGA startup, so that the flash memory is ready.

Keep close to the FPGA pads!



Figure 2.1. Typical Power Supply Filter

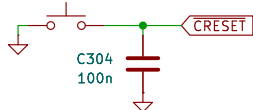
# System [3]

## FPGA Manual Reset

## FPGA Manual Reset

SW301

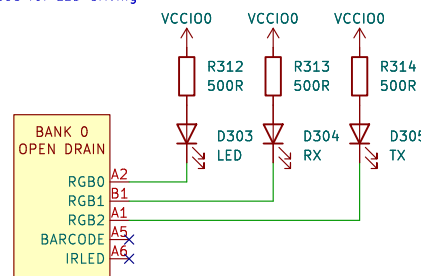
Reset



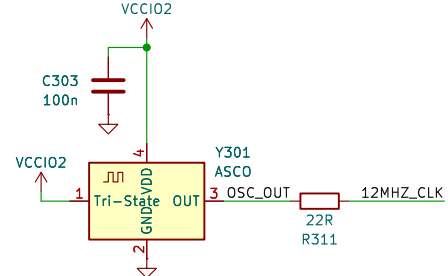
## Open-Drain Outputs

Used for LED driving

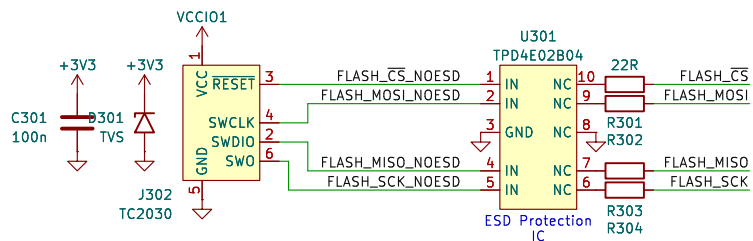
VCCI00 = 3V3



## External Oscillator



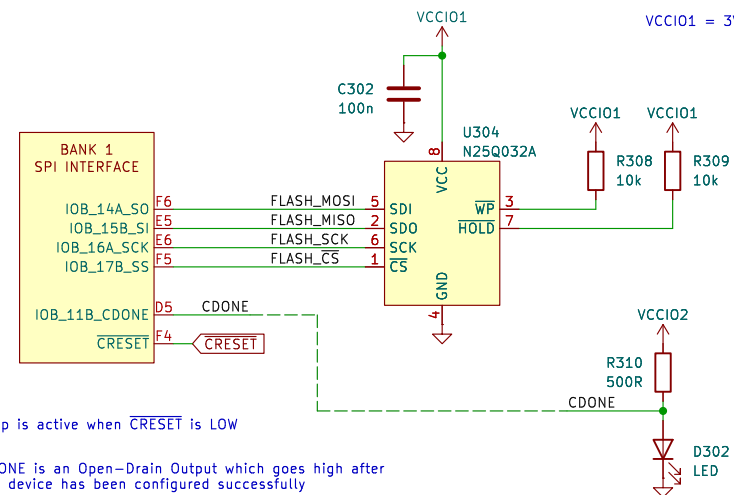
## Tag Connect Programming Interface



**SPI Flash**

Part choice may be subject to  
change in the next revision

VCCI01 = 3V3



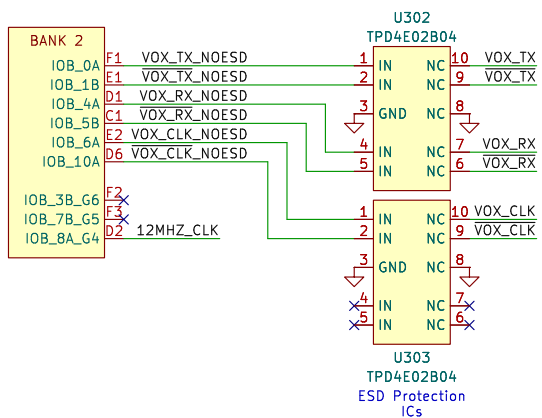
Chip is active when  $\overline{\text{CRESET}}$  is LOW

CDONE is an Open-Drain Output which goes high after the device has been configured successfully

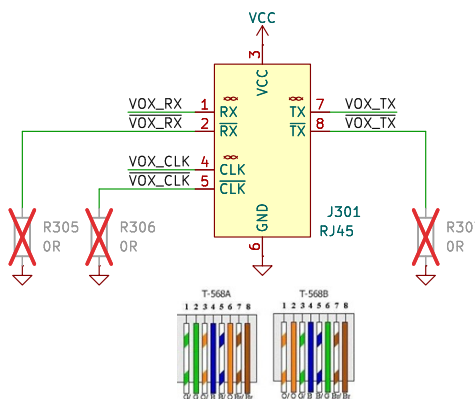
See: iCE40 Programming and Configuration app note  
Section 9.2. SPI PROM Requirements

If LED shines, the device has not been configured properly!

## VoxLink Ethernet Connection



### Ethernet Connector



No Placement (NOP) – Used in case a differential driver would not work → NEGATIVE can be tied to GND

Czech Technical University in Prague

Sheet: /System/

File: System.kicad\_sch

**Title:** System

Size: A4	Date: 2025-11-17
----------	------------------

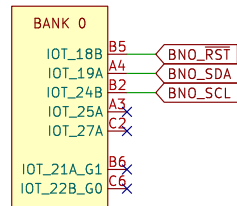
SIZE: A1	
KiCad E.D.A. 9.0.4	

Rev: 1.0

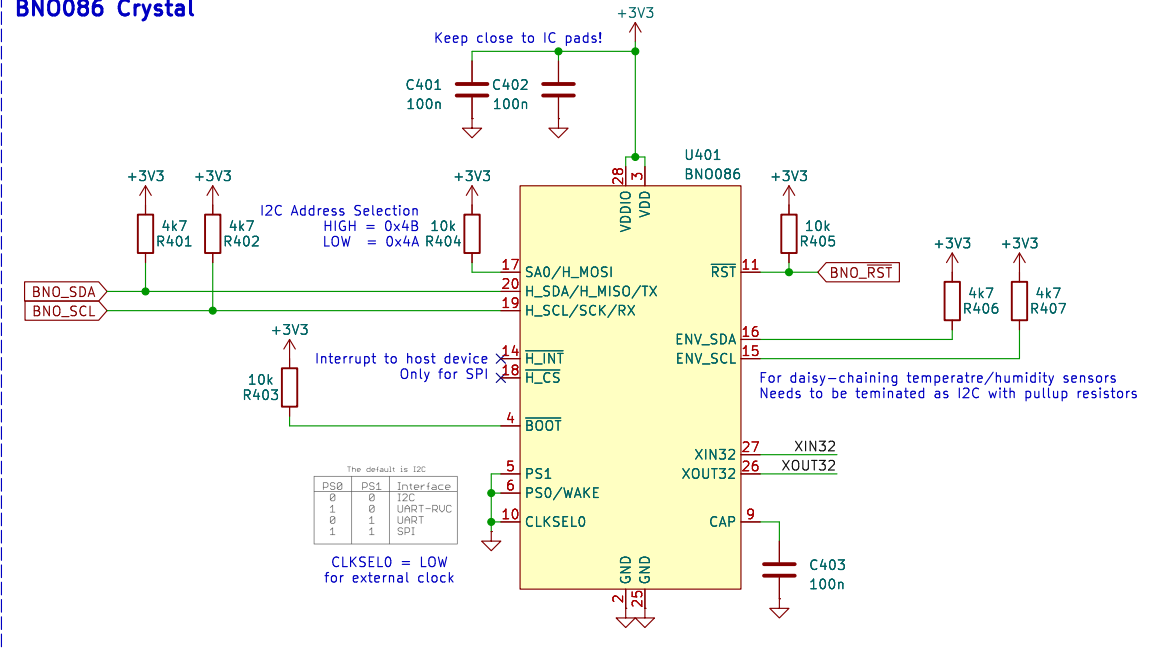
Id: 3/5

# Sensor [4]

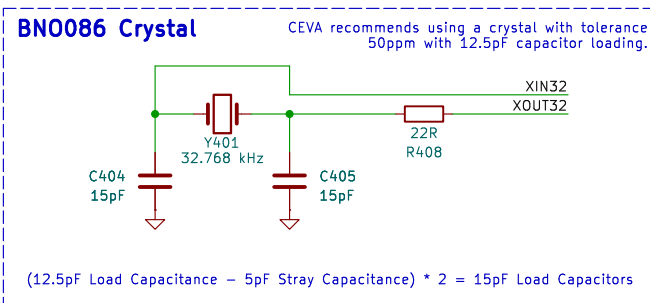
## I2C Interface



## BN0086 Crystal



## BN0086 Crystal



Czech Technical University in Prague

Sheet: /Sensor/  
File: Sensor.kicad\_sch

Title: Sensor

Size: A4 Date: 2025-11-18

KiCad E.D.A. 9.0.4

Rev: 1.0

Id: 4/5