


14.07.2023
V1.0

DRAFT

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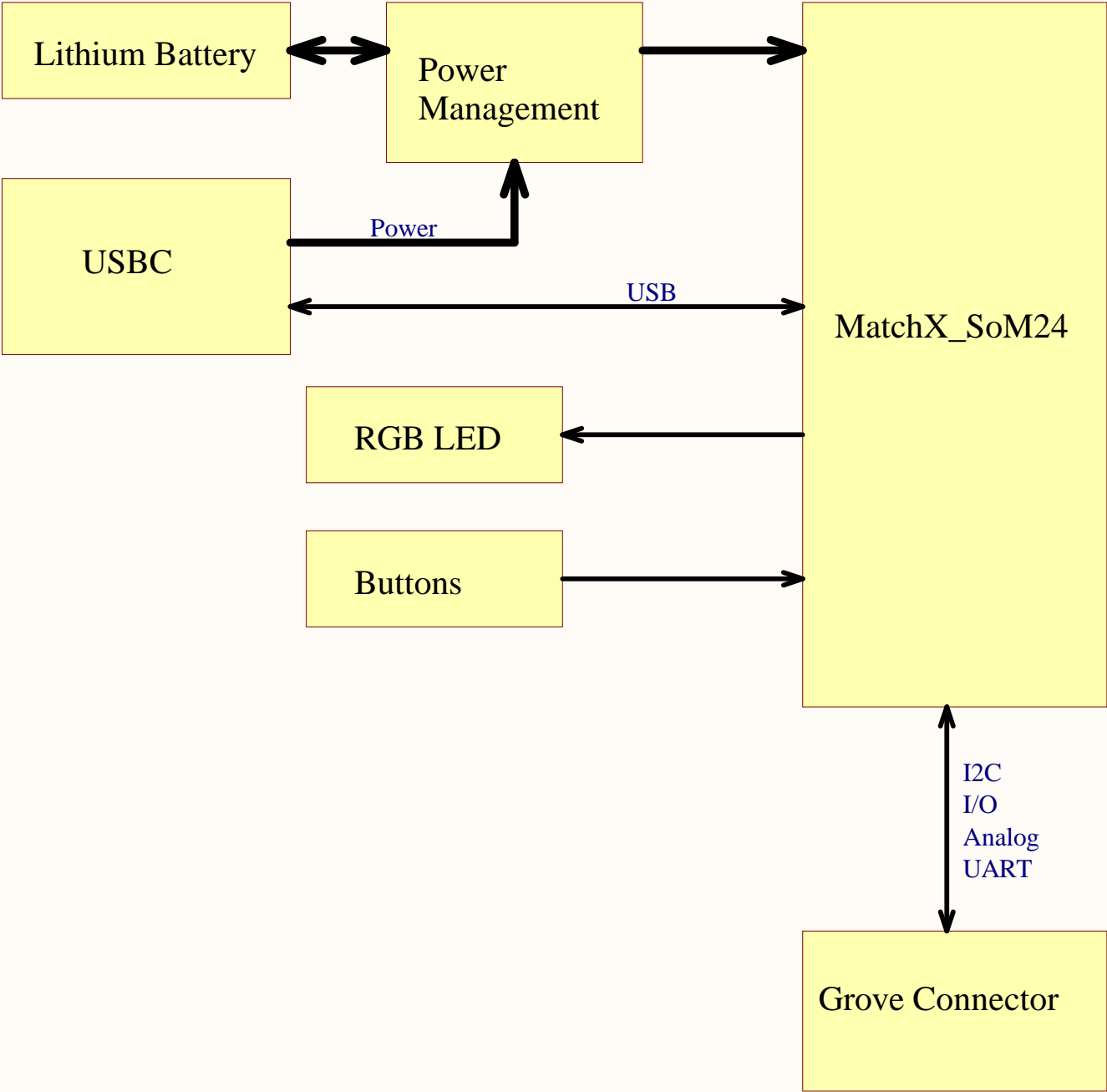
DESIGN CONSIDERATIONS


LAYOUT NOTE:
Example text for critical
layout guidelines.

Company: MatchX GmbH			CONFIDENTIAL. Do not distribute.	
Title: X2E Reference Sensor Variant: Default			MatchX GmbH 	
Size: A3	Number: 001	Revision: 1.0		
Date: 14.07.2023	Time: 12:38:12	Sheet of		
File: COVER PAGE_SchDoc				
			Engineer: PSB	

X2E Reference Sensor

(Block Diagram)



Company: MatchX GmbH			CONFIDENTIAL. Do not distribute.	
Title: X2E Reference Sensor Variant: Default			MatchX GmbH	
Size: A3	Number: 001	Revision: 1.0		
Date: 14.07.2023	Time: 12:38:12	Sheet of		
File: BLOCK DIAGRAM.SchDoc				

Designator
COVER PAGE.SchDoc

Designator
BLOCK DIAGRAM.SchDoc

Designator
DOC REVISION HISTORY.SchDoc

Designator
ESP32_S3.SchDoc

Designator
SENSORS.SchDoc

Designator
POWER.SchDoc

Designator
LoRa.SchDoc

Designator
GPS.SchDoc

TEMPLATE NOTES

Set Project Parameters

- 1) Go to Project -> Project Options -> Parameters
- 2) Set Company, Project and VersionRevision

Mark Not Fitted Components as
NF

Net Class Example



Differential signal example



TITLE Examples (You can change the color to reflect your company color)

PAGE TITLE

Peripheral / Group of component title

Smaller Ttitle


Schematic Status Explanation

DRAFT - Very early stage of schematic, ignore details.

PRELIMINARY - Close to final schematic.

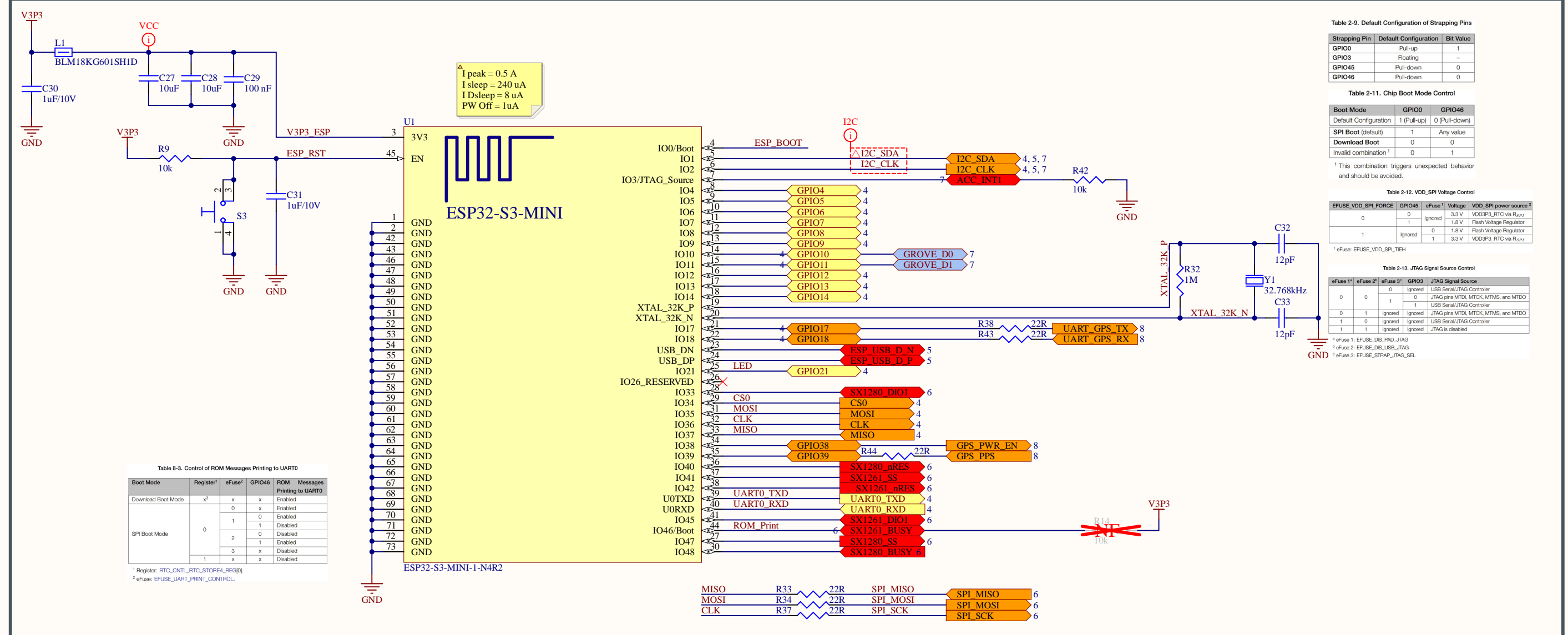
CHECKED - There should not be any mistakes. Tell the engineer if you find one.

RELEASED - A board with this schematic has been sent to production.

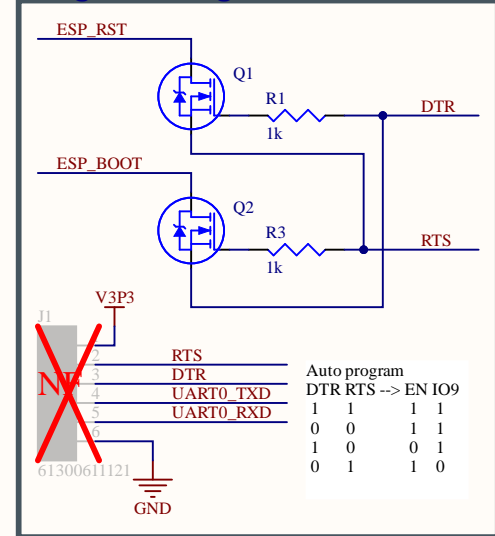
Company: MatchX GmbH				CONFIDENTIAL. Do not distribute.	
Title: X2E Reference Sensor Variant: Default				MatchX GmbH	
Size: A3		Number: 001	Revision: 1.0		
Date: 14.07.2023	Time: 12:38:12	Sheet of			
File: TOP SHEET.SchDoc			Engineer: PSB		

ESP32_S3.SchDoc

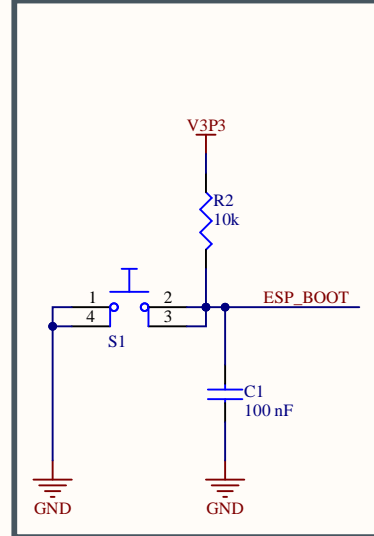
ESP32-S3 Module



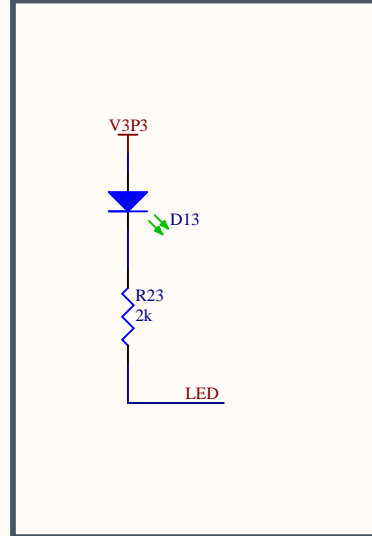
Programming interface



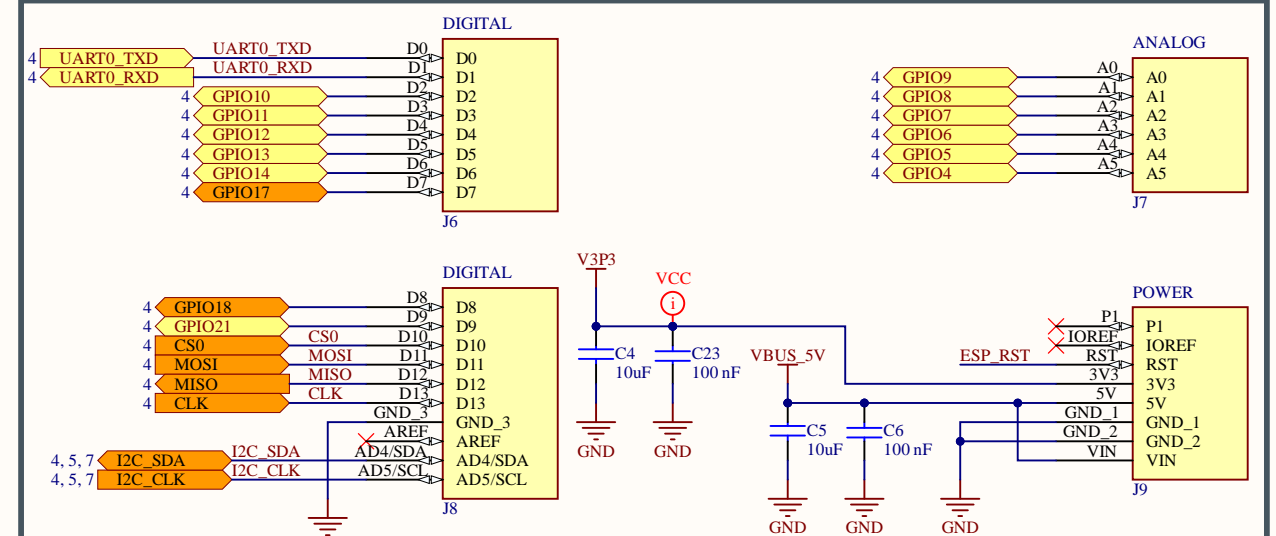
Boot



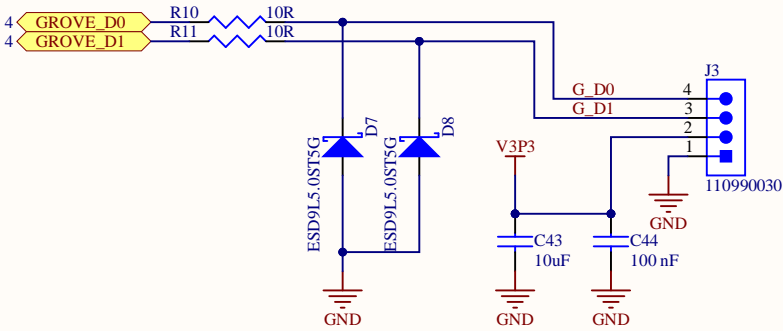
LED



Arduino Header

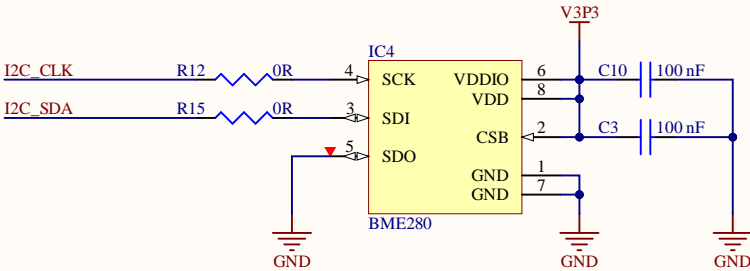


Grove Connector



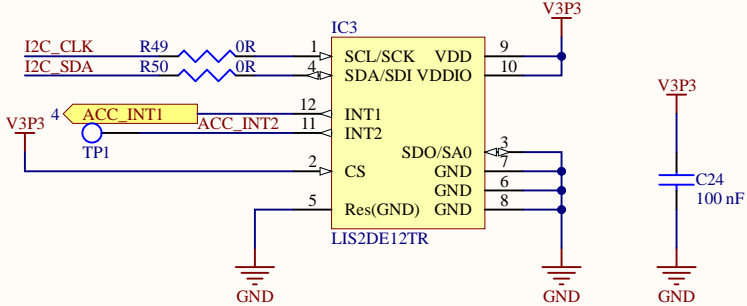
Pressure/Temp/Humidity Sensor

I2C 7 bits Address: 0x76

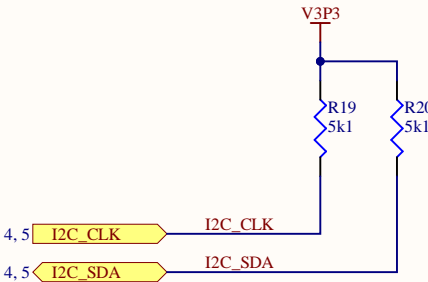


Accelerometer

I2C 7 bits Address: 0x18

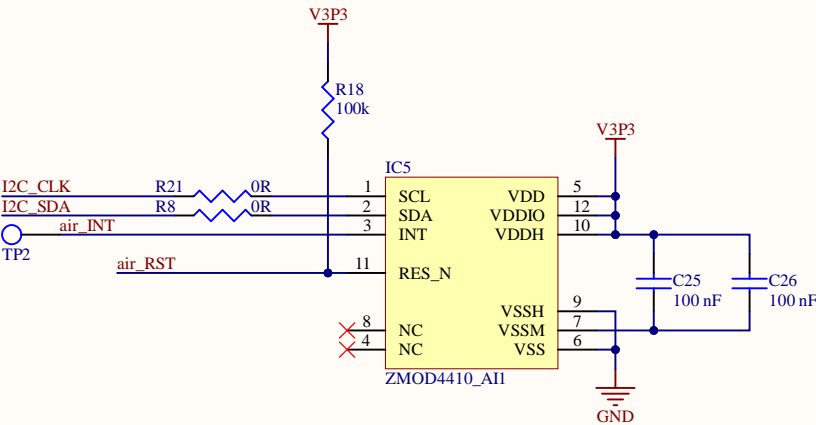


I2C Pull-Ups

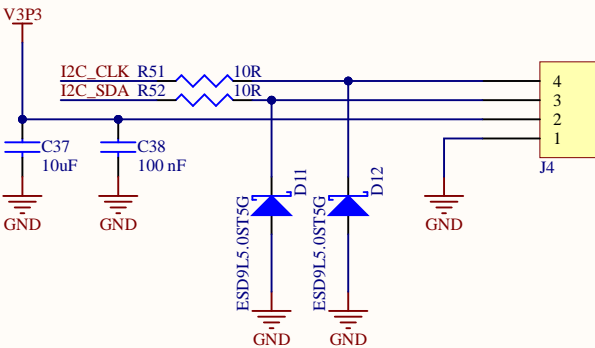


Air Quality Sensor

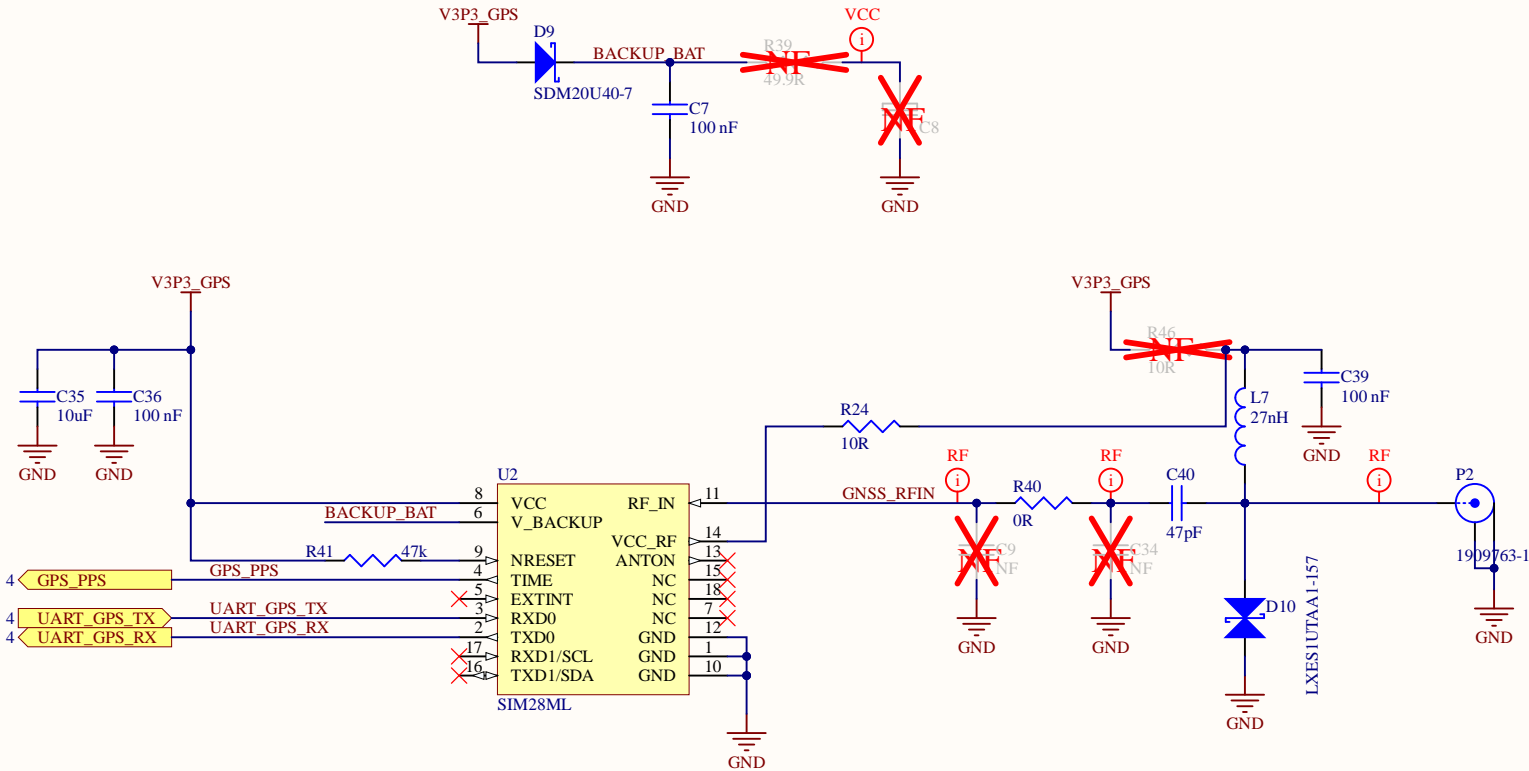
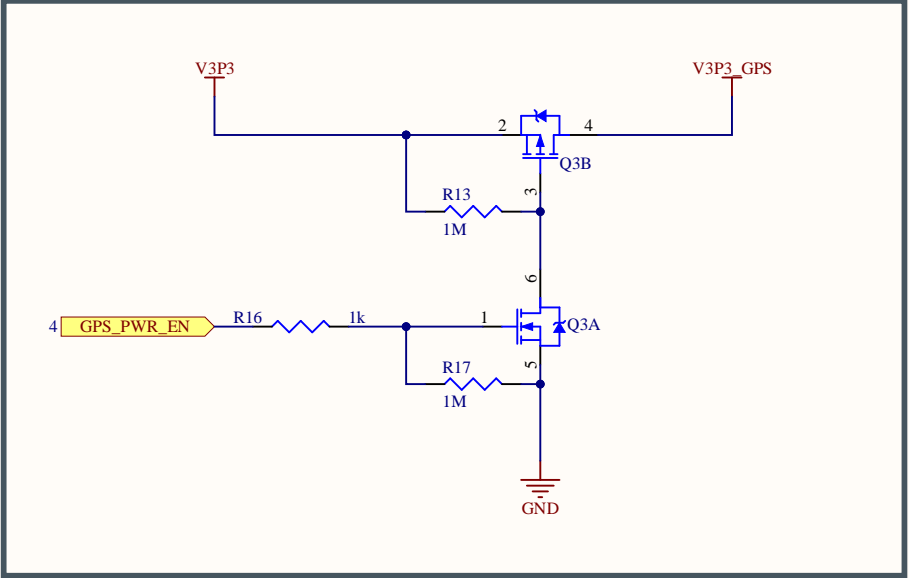
I2C 7 bits Address: 0x32



STEMMA 4-Pin



Power Enable




DOC: REVISION HISTORY

Revision History

TODO in rev.1.1

CLOCKS (CPU & PCIe)

Company: <i>MatchX GmbH</i>			CONFIDENTIAL. Do not distribute.	
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