

# B-U585I-IOT02A

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MB1551

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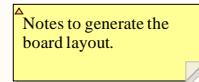
## Legend

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General comment such as function title, configuration, ...

Text to be added to silkscreen.

Warning text.



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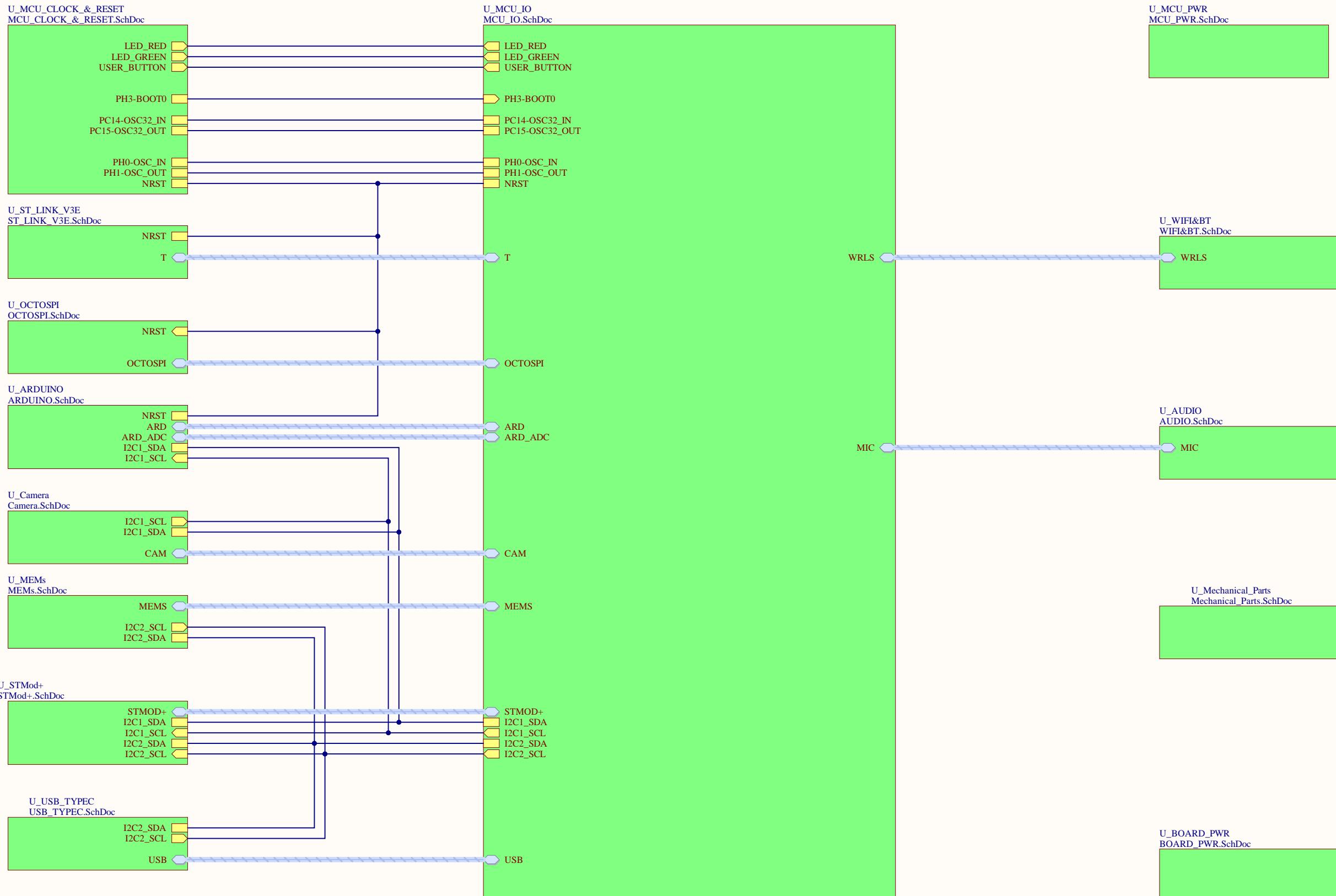
U\_MB1551\_TOP  
MB1551\_TOP.SchDoc

A large redacted rectangular area covering the reference document details.

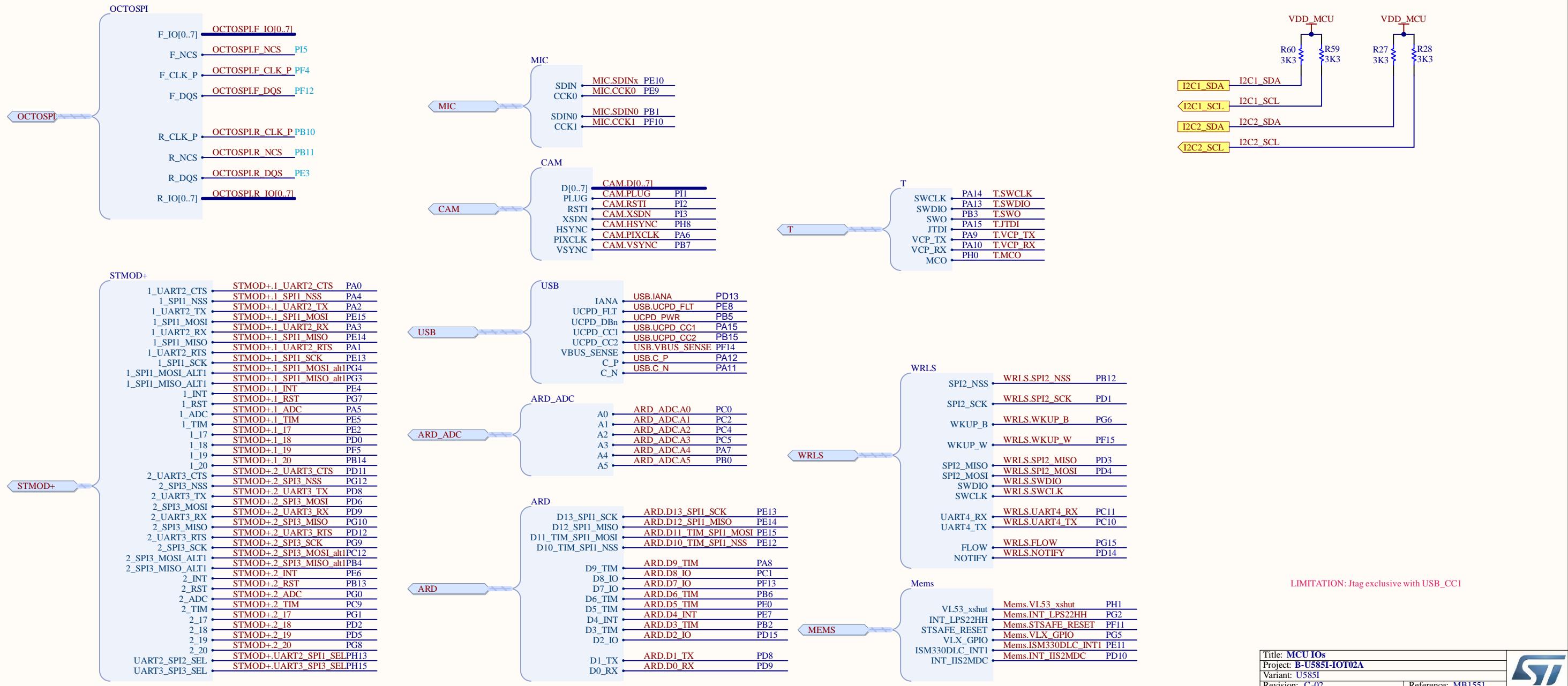
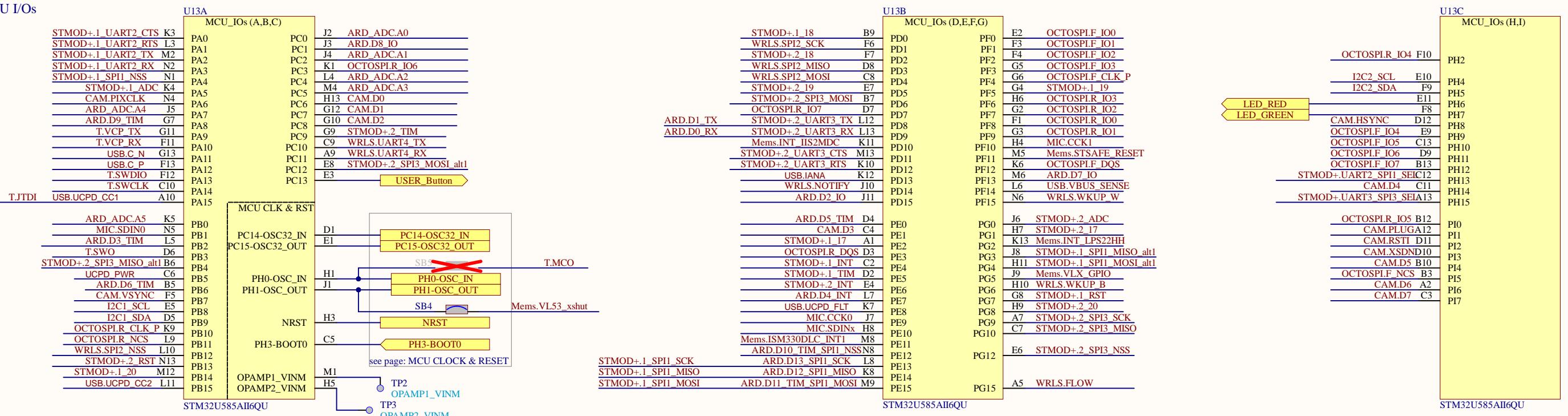
Title:	Project overview
Project:	B-U585I-IOT02A
Variant:	U585I
Revision:	C-02
Size:	A4
Date:	09 SEPT 2021
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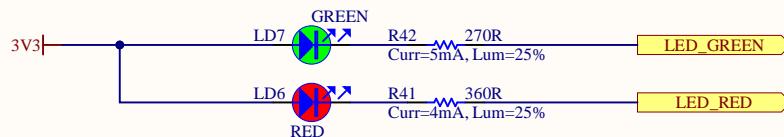
life.augmented



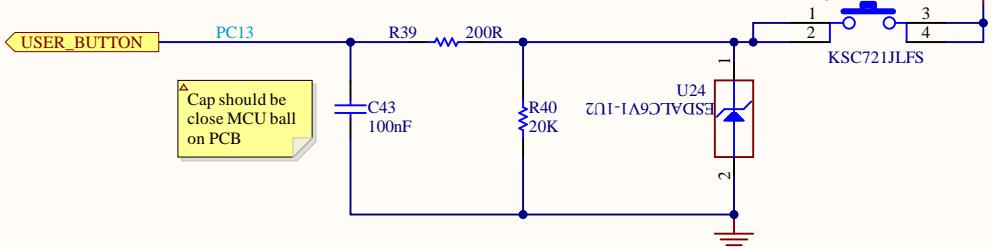
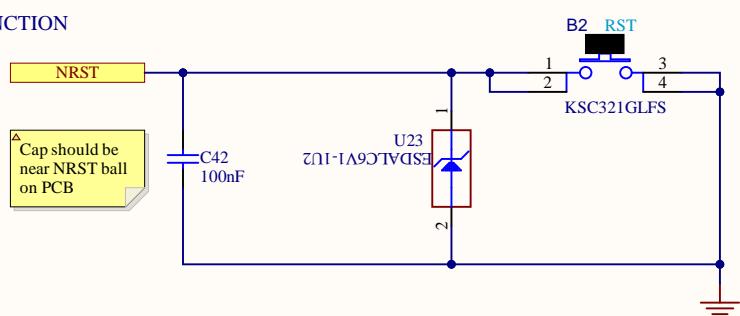
# STM32 MCU IOs



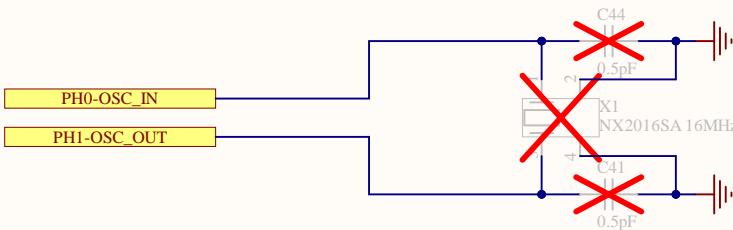
## USER LEDs



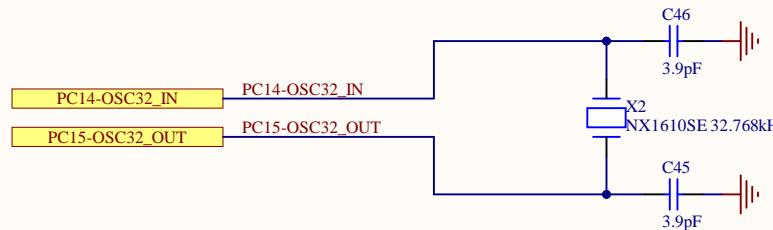
## RESET FUNCTION



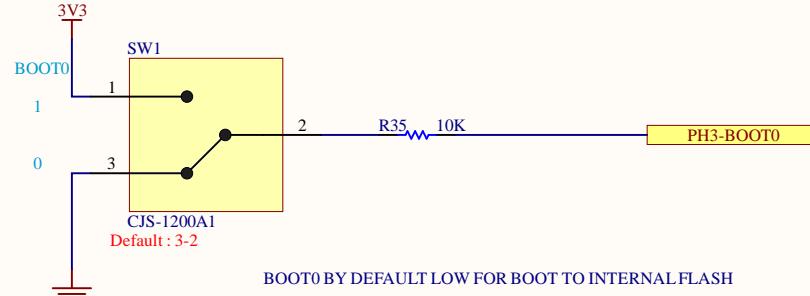
## EXTERNAL HSE CLK



## EXTERNAL LSE CLK



## PH3\_BOOT0



Title: MCU\_CLOCK & RESET

Project: B-U585I-IOT02A

Variant: U585I

Revision: C-02

Reference: MB1551

Size: A4 Date: 09 SEPT 2021

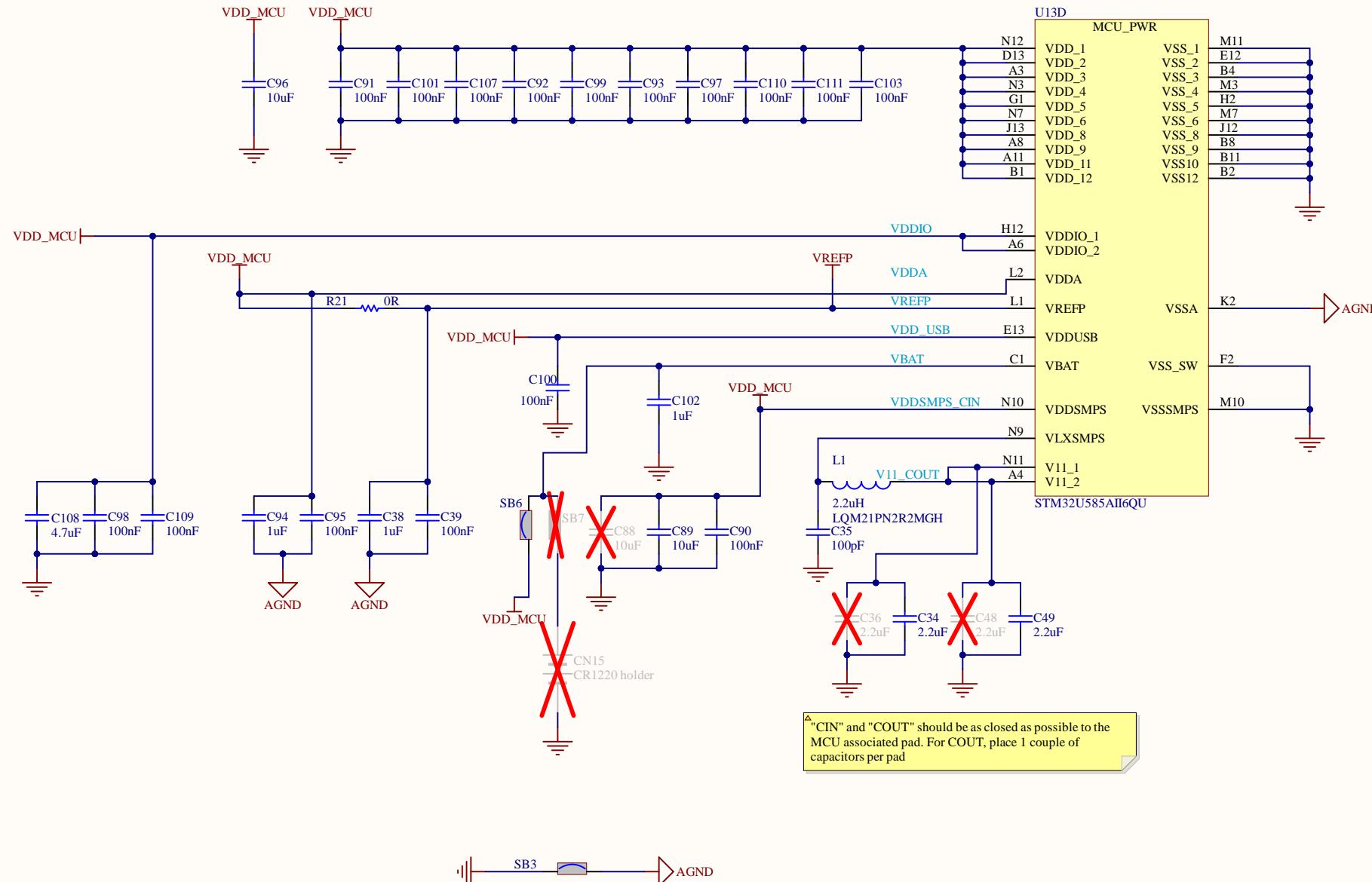
Sheet: 4 of 16



life.augmented

## MCU PWR SUPPLIES

MCU DECAPS  
Ceramic capacitor (Low ESR, ESR<1ohm)



△ "CIN" and "COUT" should be as closed as possible to the MCU associated pad. For COUT, place 1 couple of capacitors per pad

Title: **MCU PWR**

Project: **B-U585I-IOT02A**

Variant: **U585I**

Revision: **C-02**

Size: **A4**

Date: **09 SEPT 2021**

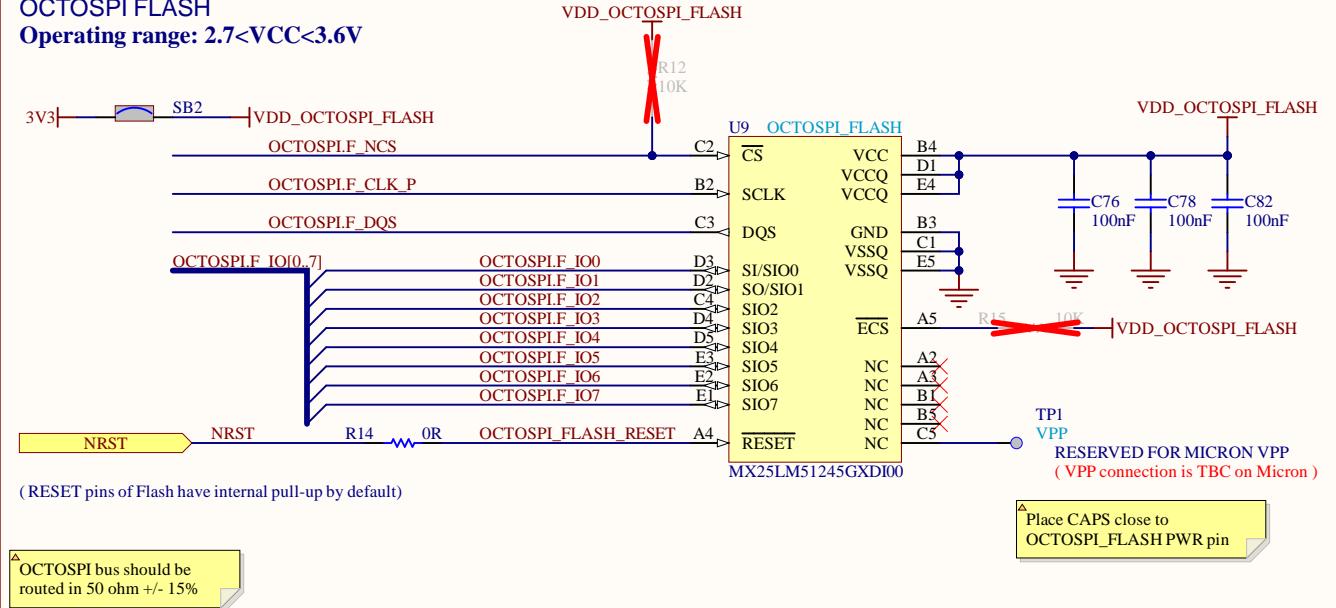
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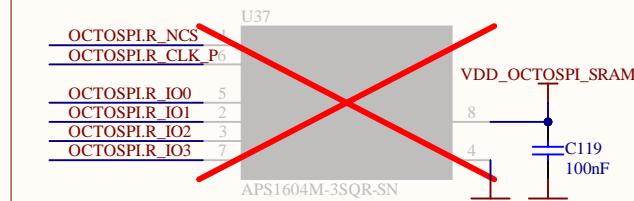
life.augmented

Q

**Operating range: 2.7<VCC<3.6V**



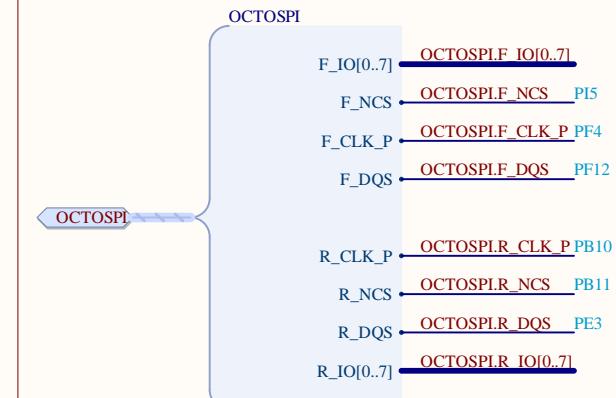
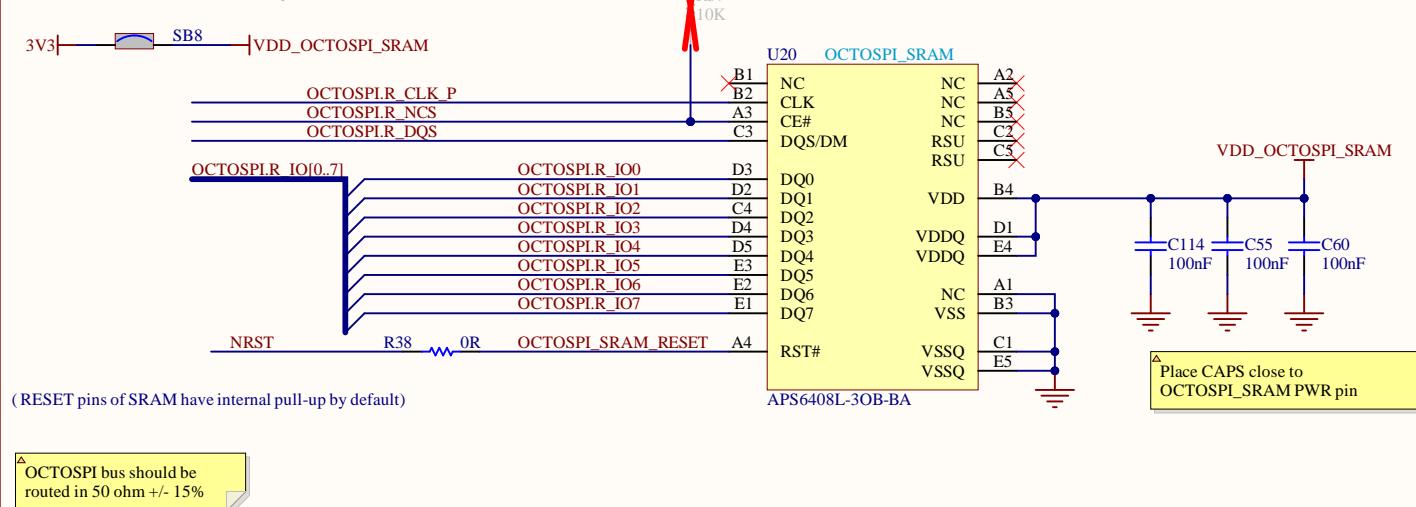
QUAD SRAM



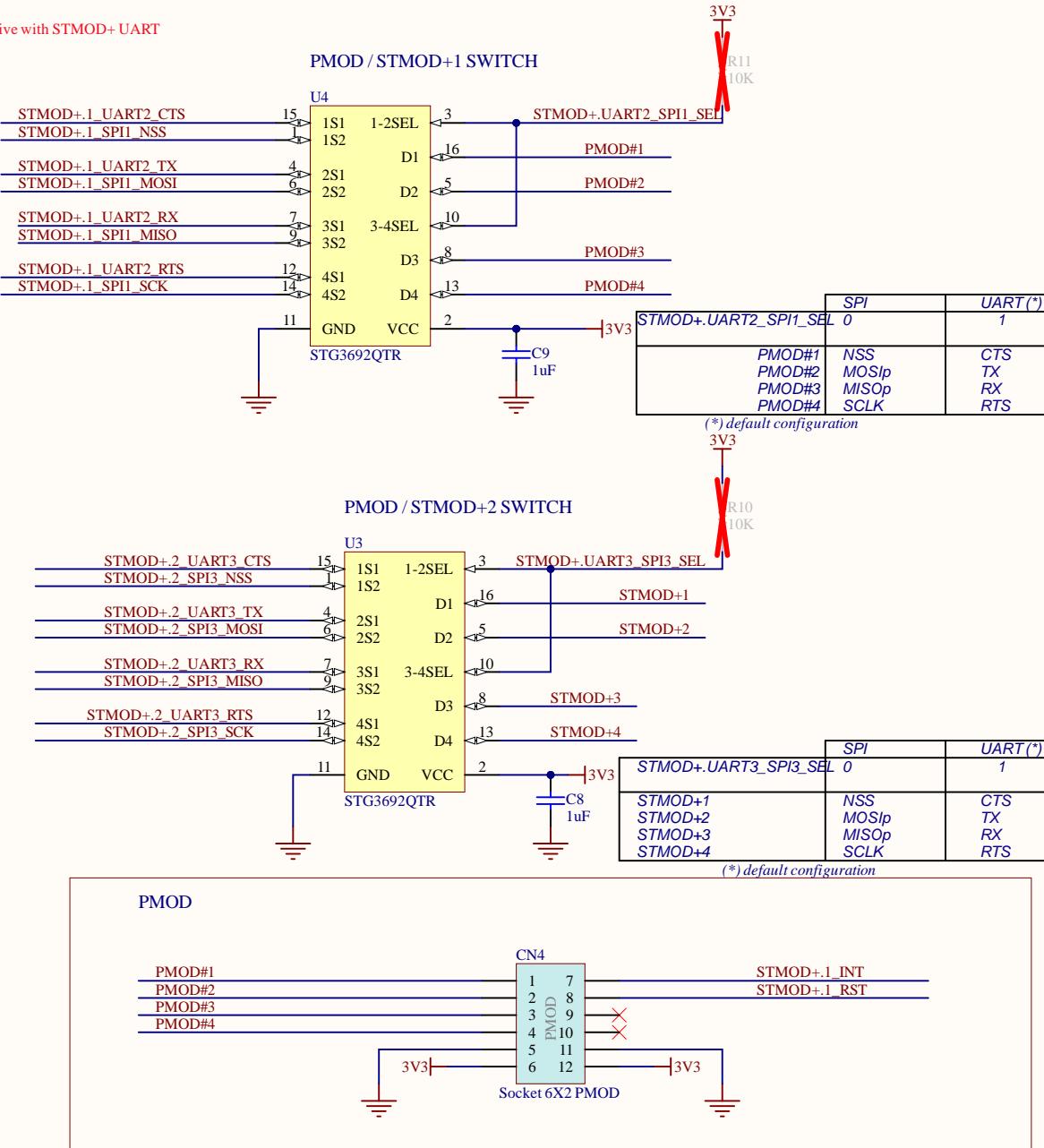
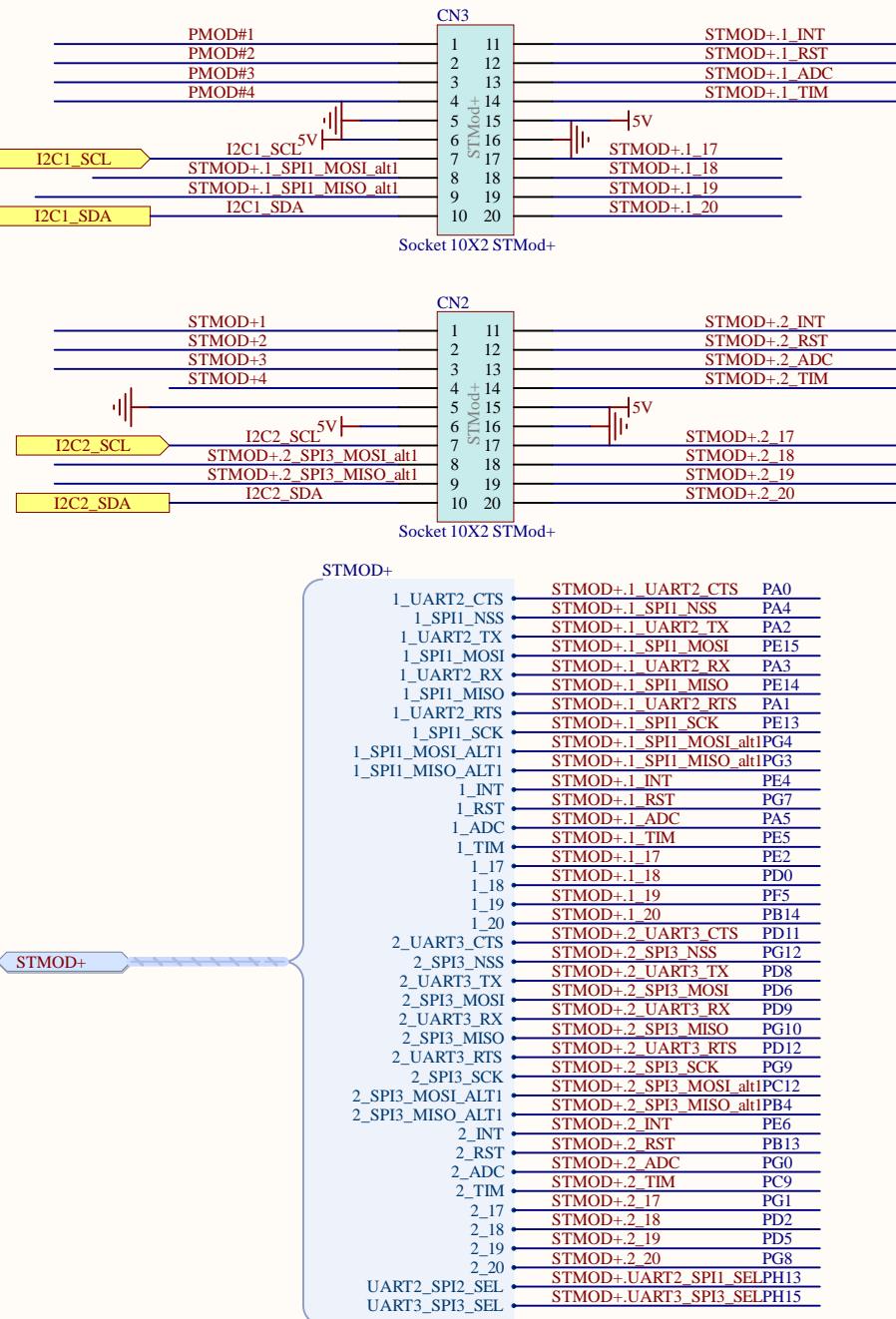
add the footprint to support APMemory QSPI in package SO8

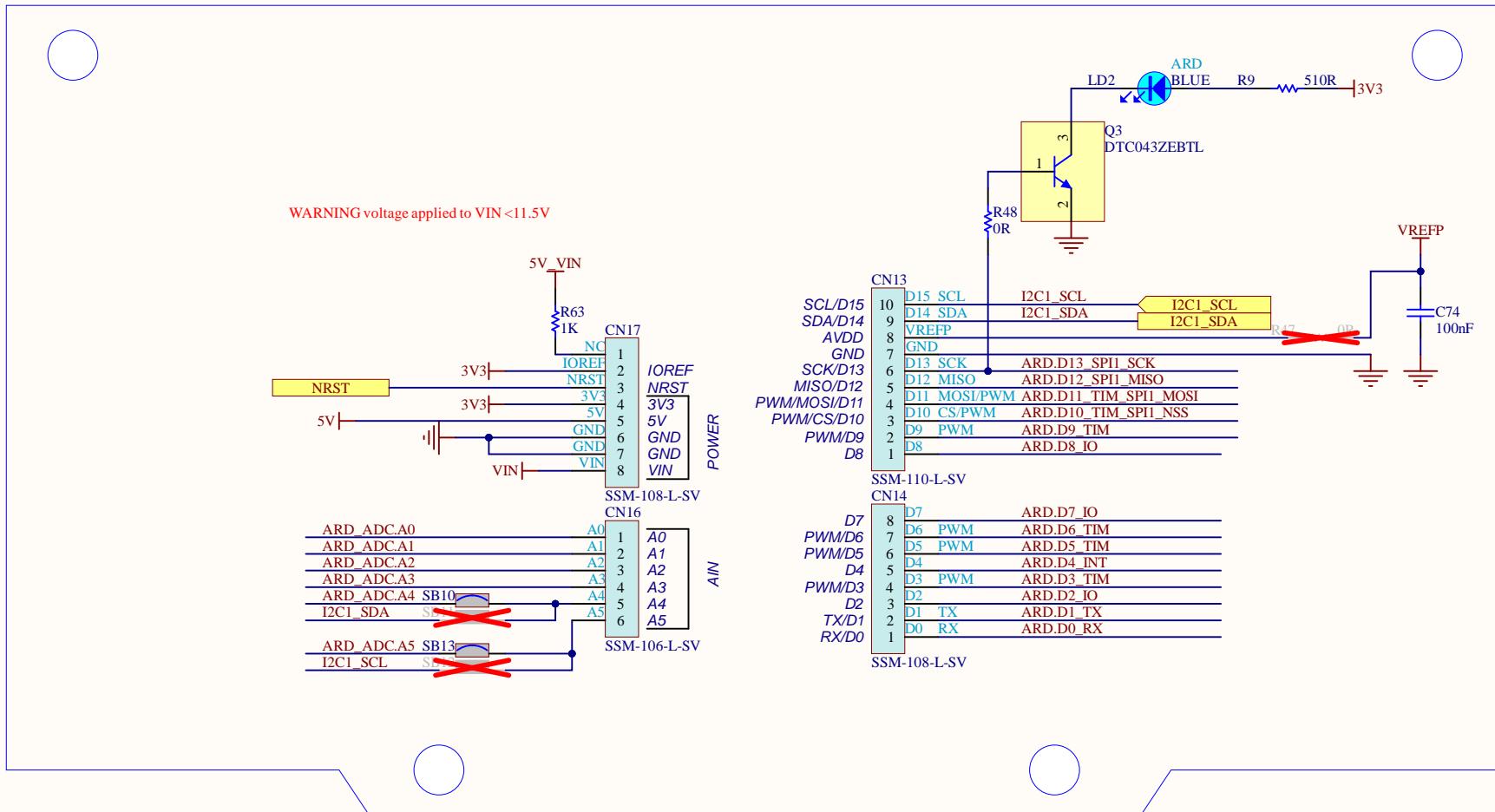
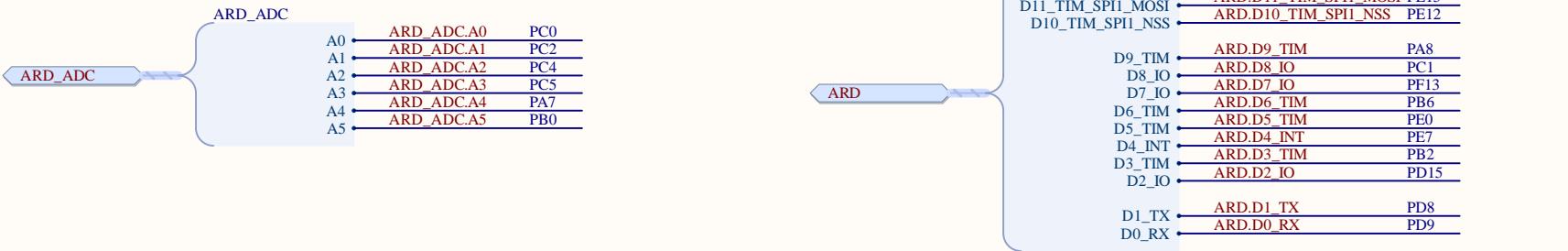
OCTOSPI SRAM

**Operating range:  $2.7 < VDD < 3.6V$**   
 **$2.7 < VDDQ < 3.6V$**



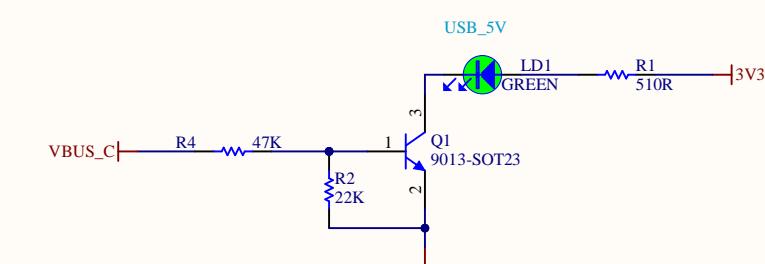
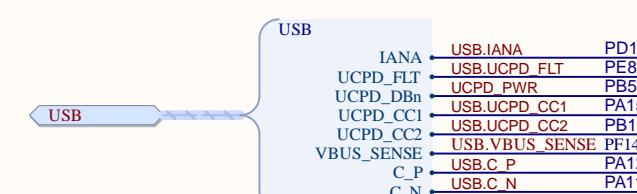
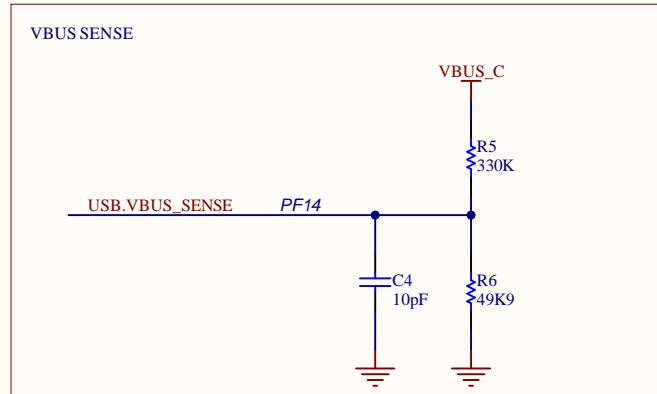
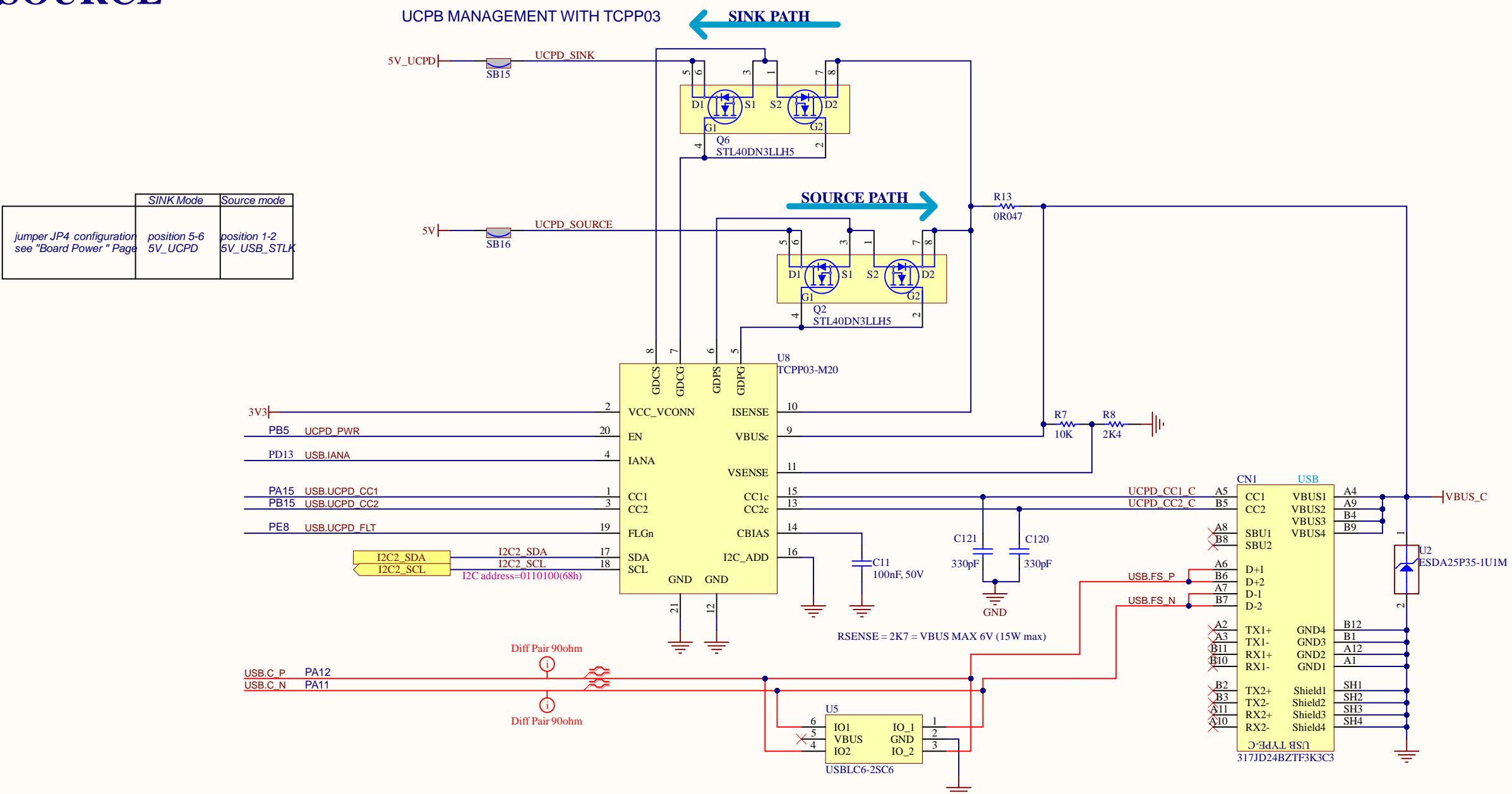
LIMITATION: Arduino UART exclusive with STMOD+ UART





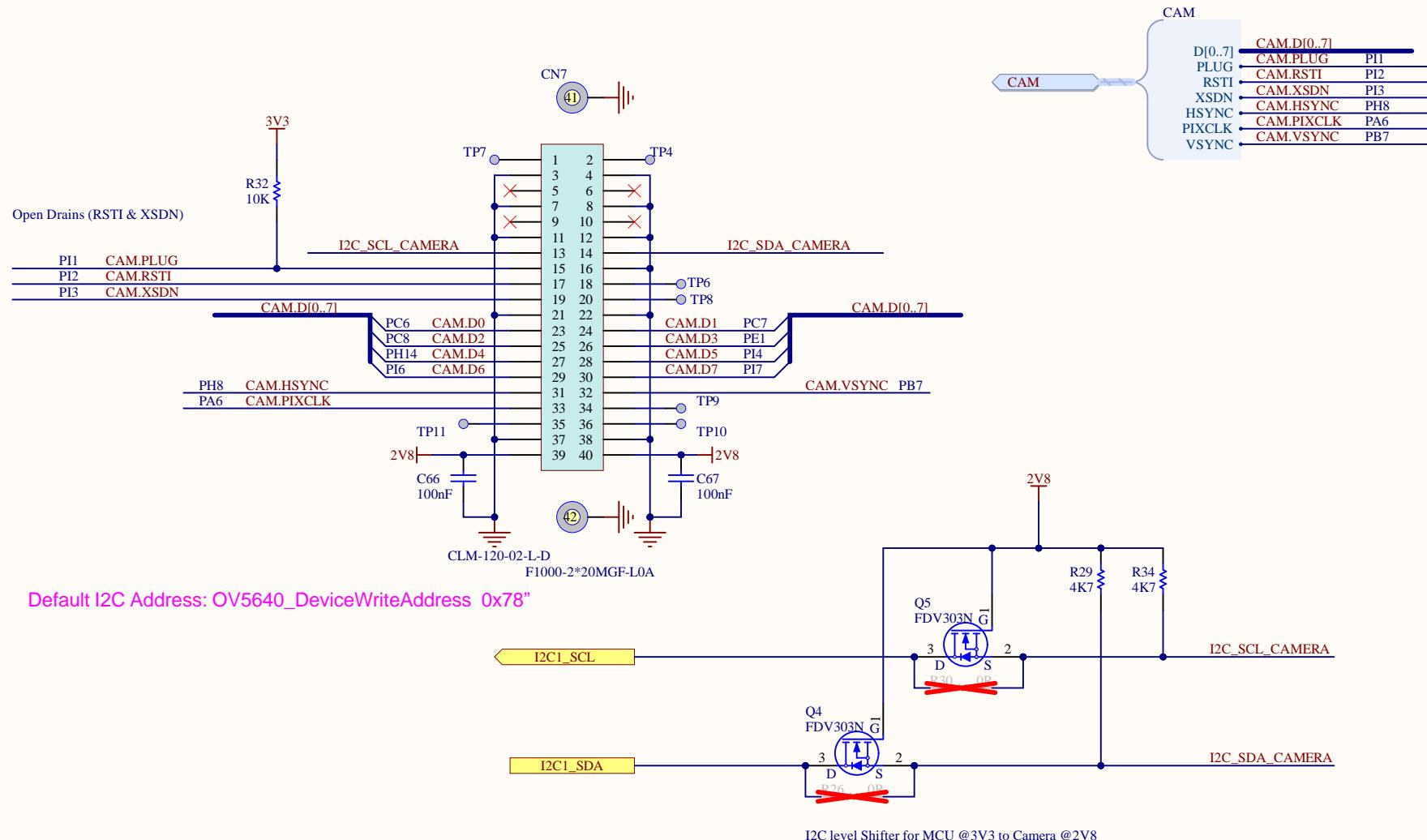
# SINK and SOURCE

UCPB MANAGEMENT WITH TCPP03



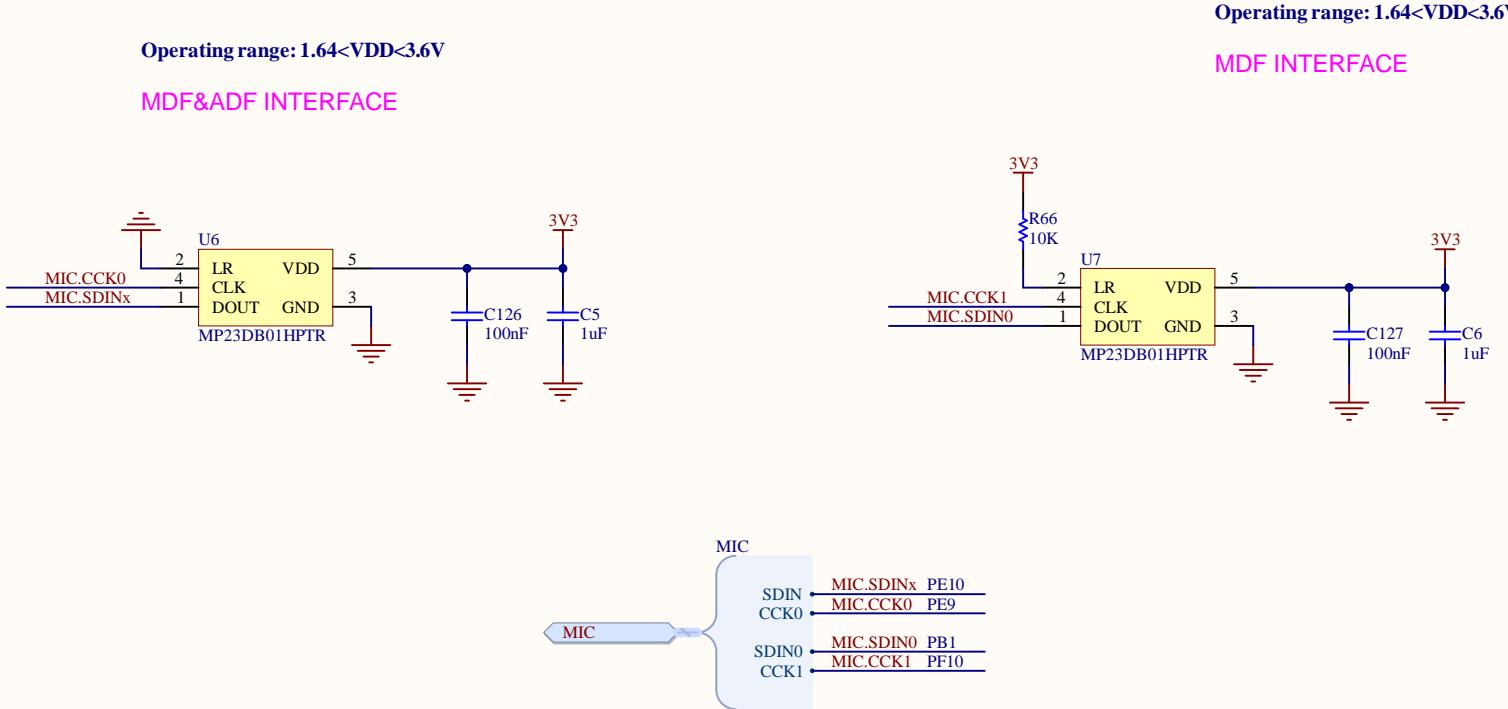
# CAMERA MODULE CONNECTOR

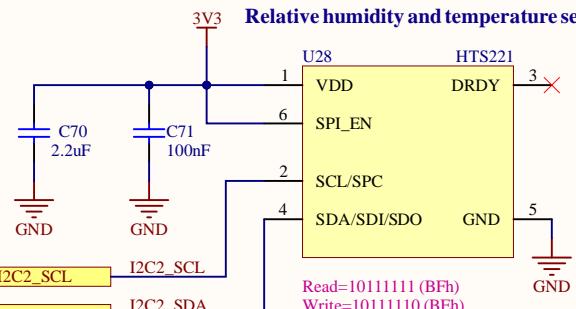
Operating range: 2.8<VDD<3.6V



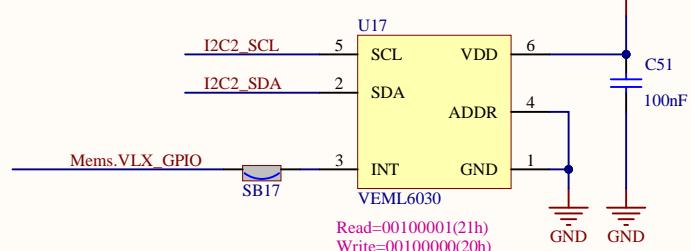
▲ OCTOSPI bus should be  
routed in 50 ohm +/- 15%

## AUDIO MEMS

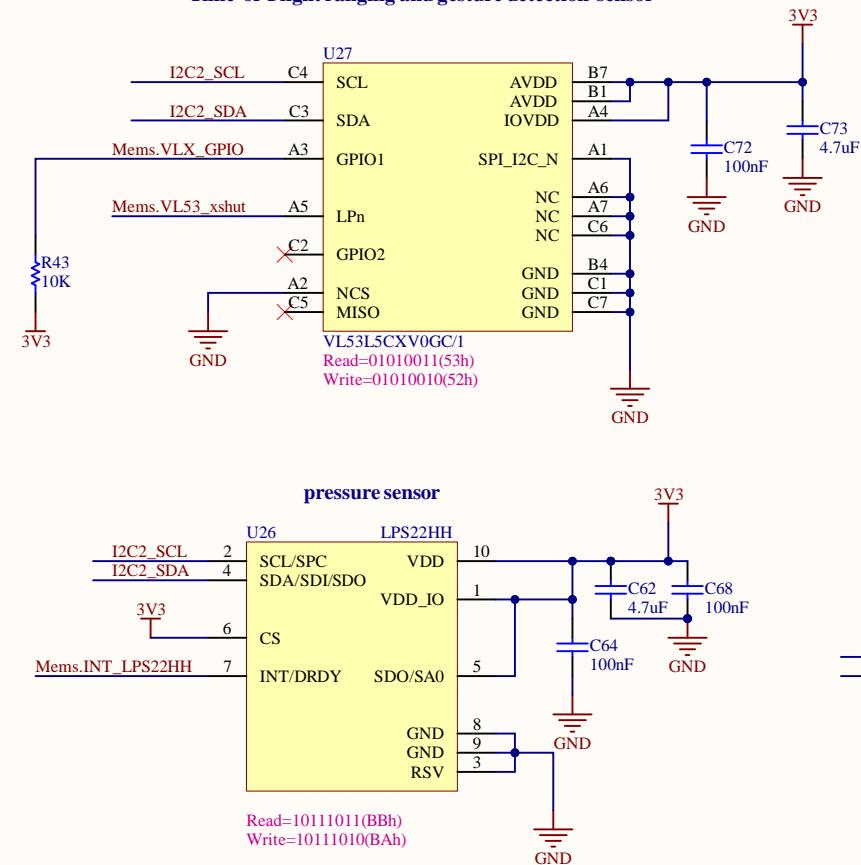




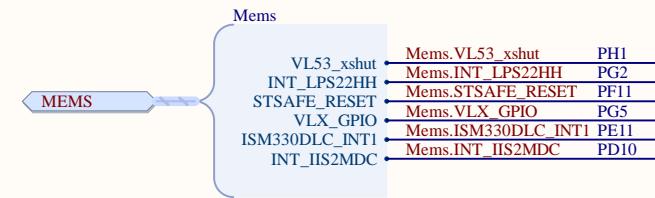
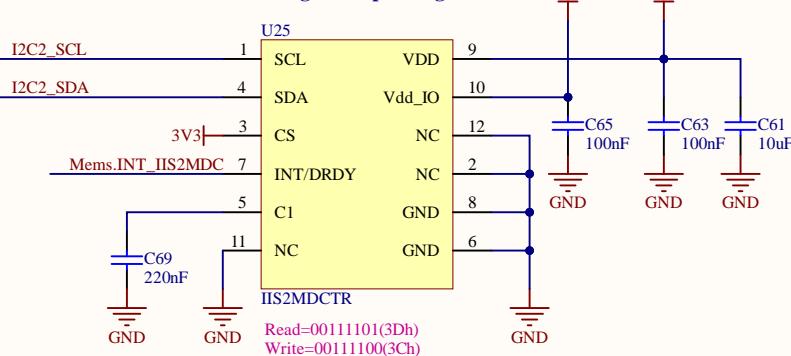
## Ambient Light Sensor



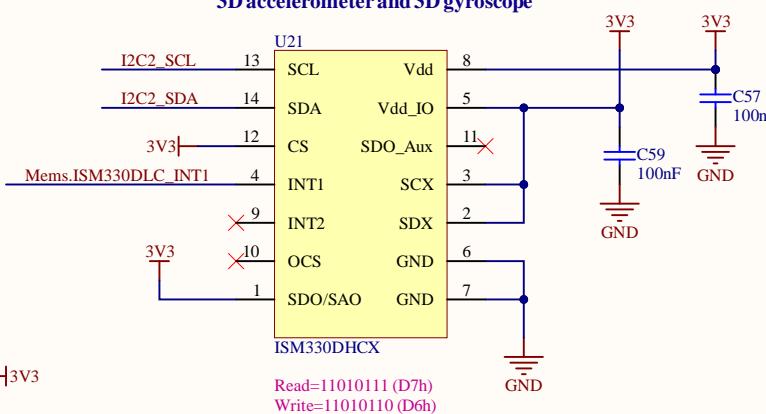
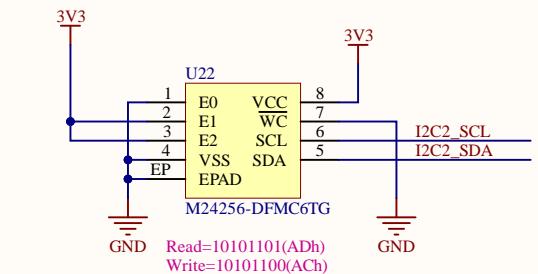
## Time-of-Flight ranging and gesture detection sensor



### **3-axis digital output magnetometer**

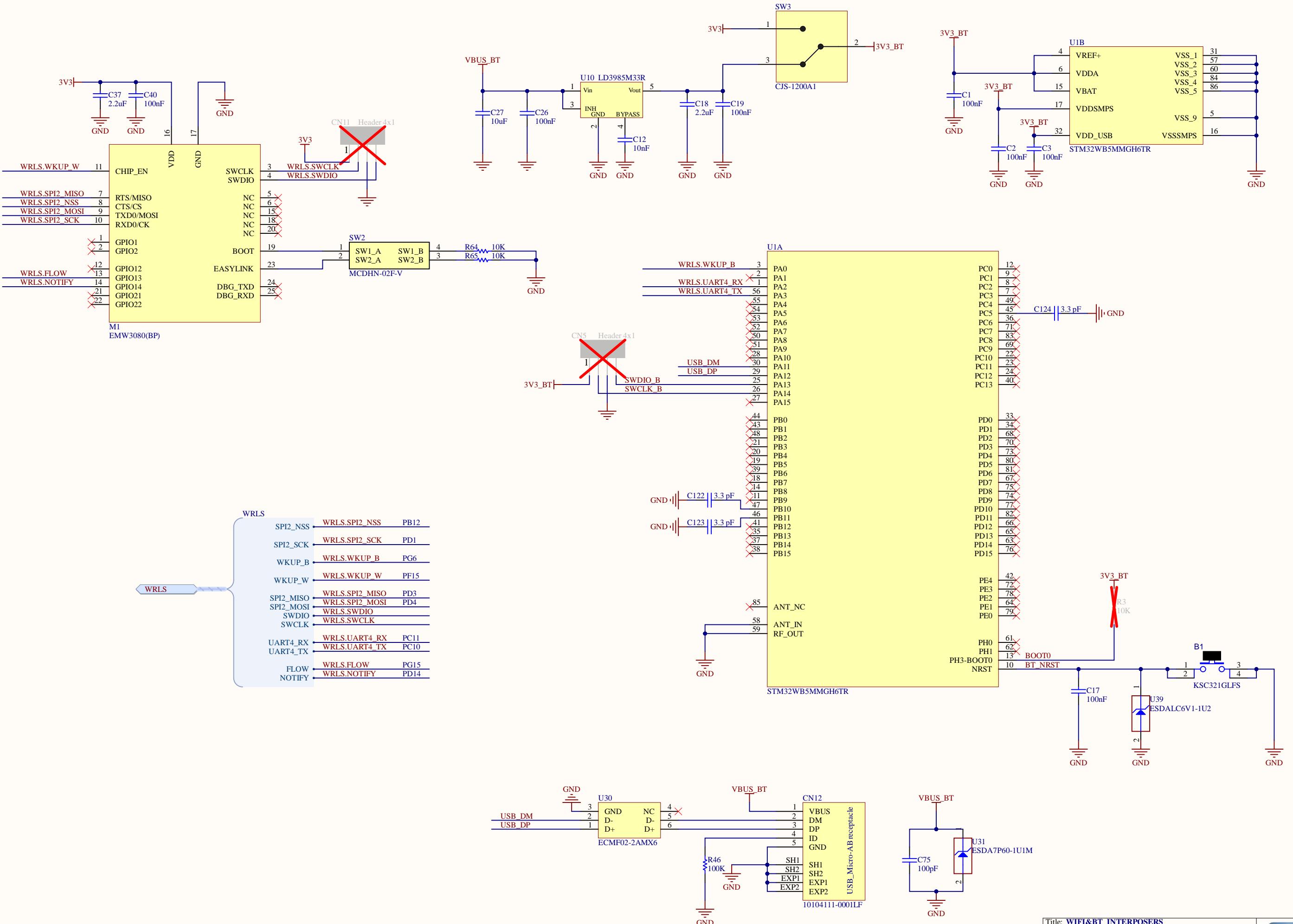


### **3D accelerometer and 3D gyroscope**

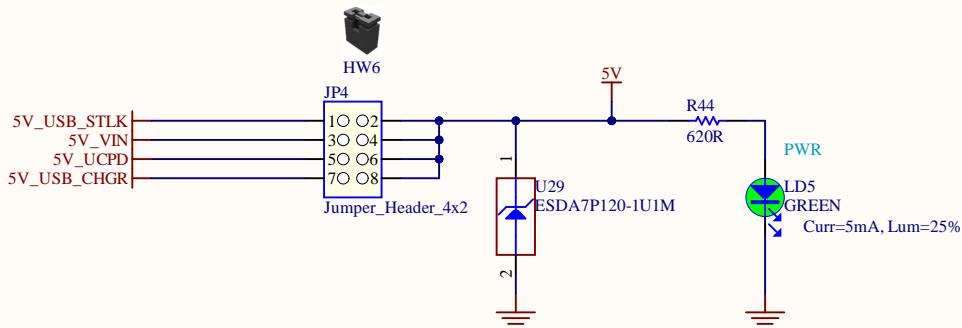


Title: <b>MEMS</b>	
Project: <b>B-U585I-IOT02A</b>	
Variant: <b>U585I</b>	
Revision: <b>C-02</b>	
Size: <b>A4</b>	Date: <b>09 SEPT 2021</b>
Sheet: <b>12 of 16</b>	Reference: <b>MB1551</b>

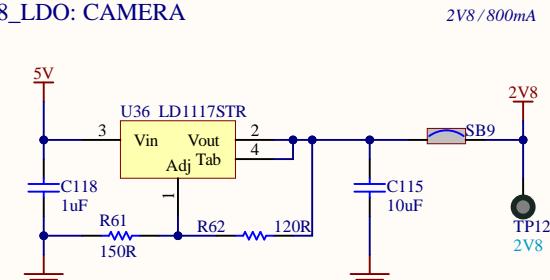




## 5V PWR SOURCE SELECTION

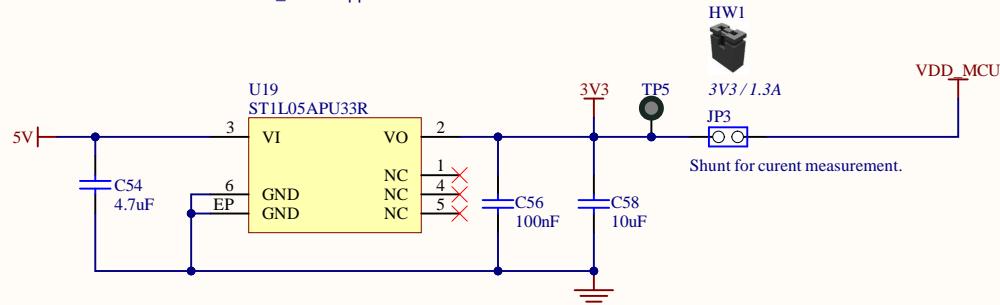


## 2V8\_LDO: CAMERA

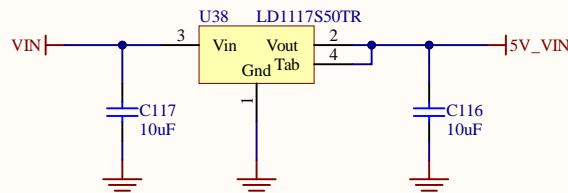


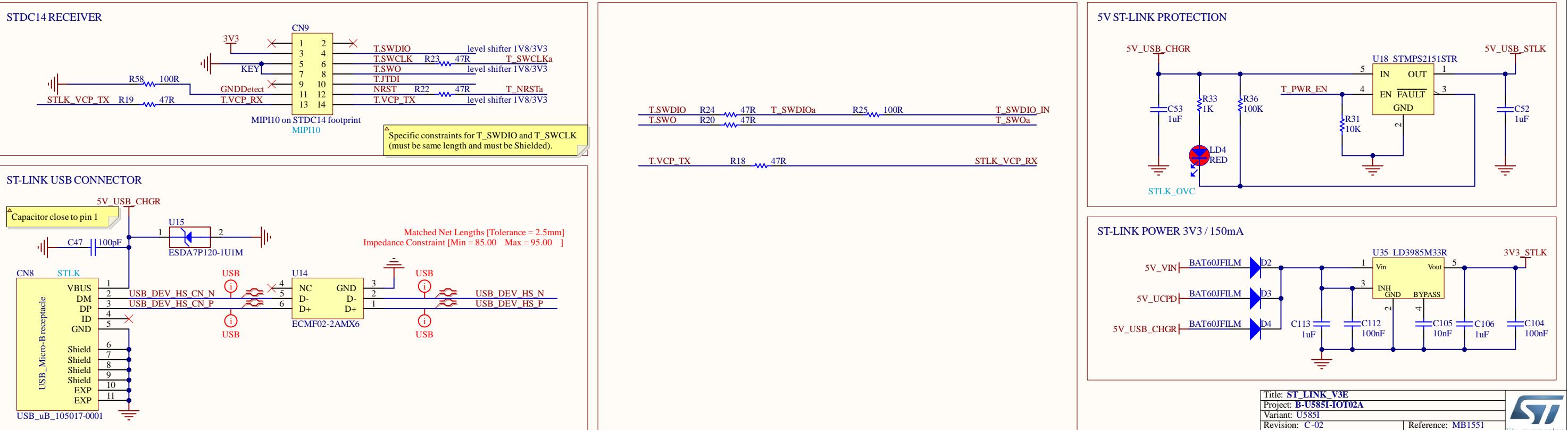
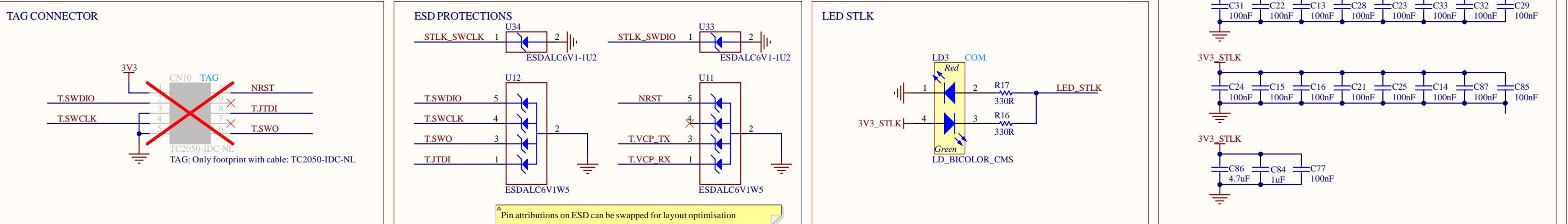
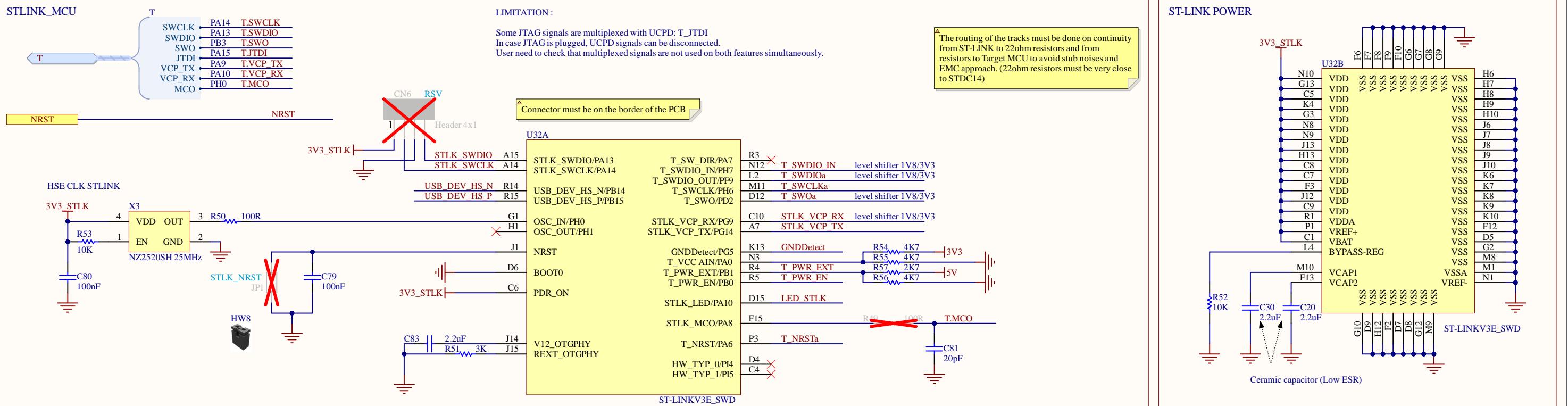
## 3V3 PWR SOURCE: 3V3 / 1300mA

### 3V3 and VDD MCU supplies



## VIN FROM ARDUINO up to 12V: OUTPUT 5V / Up to 800mA (depend of VIN)

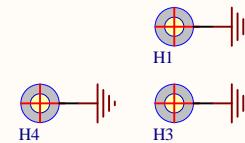




## PCB / STICKERS



## MECHANICAL PARTS



## ADDED MODULES

Title: MECHANICAL PART

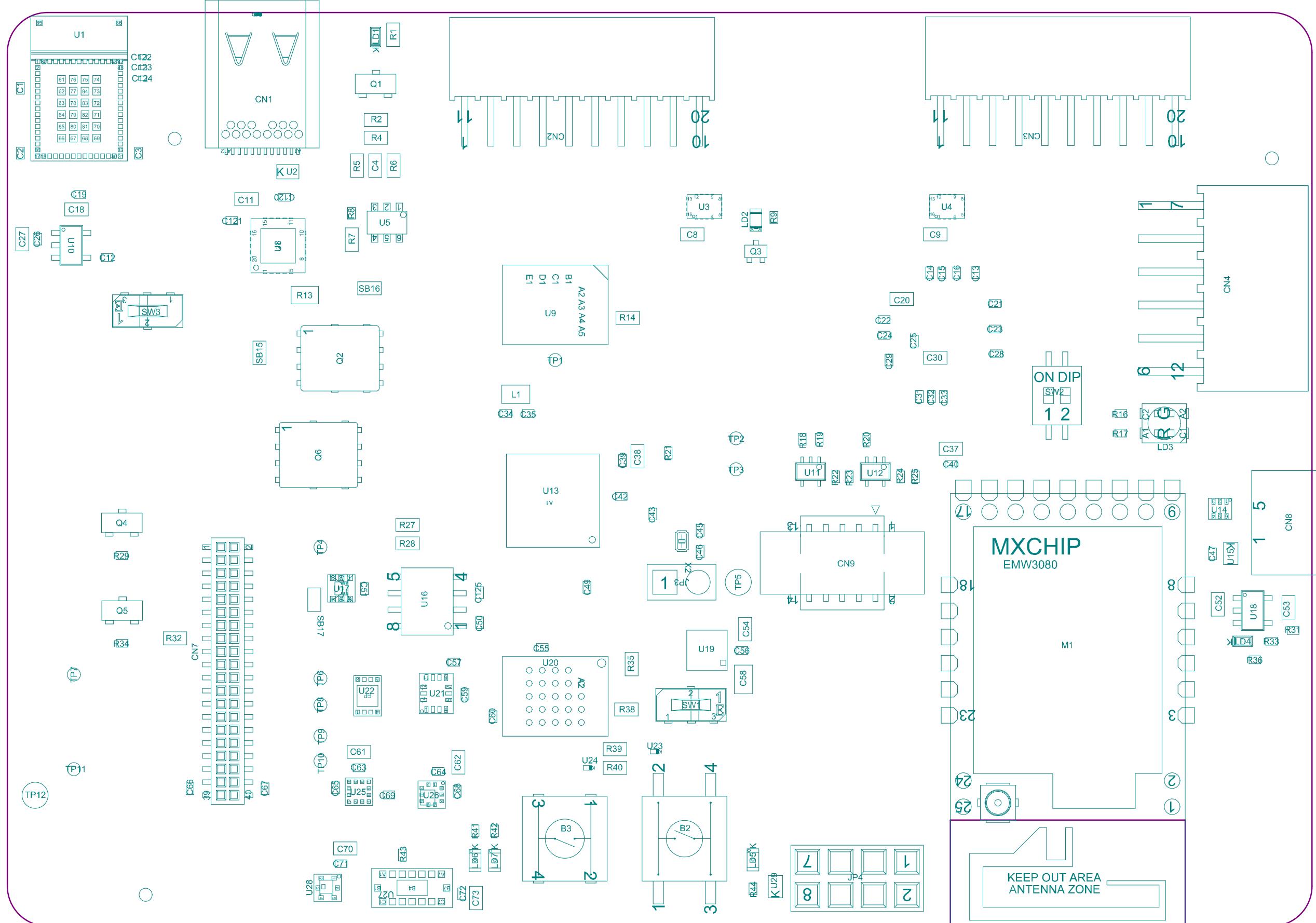
Project: B-U585I-IOT02A

Variant: U585I

Revision: C-02

Reference: MB1551

Size: A4 Date: 09 SEPT 2021



Project: B-U585I-IOT02A

# Layer: M14-Top Assembly

# Gerber: .GM14

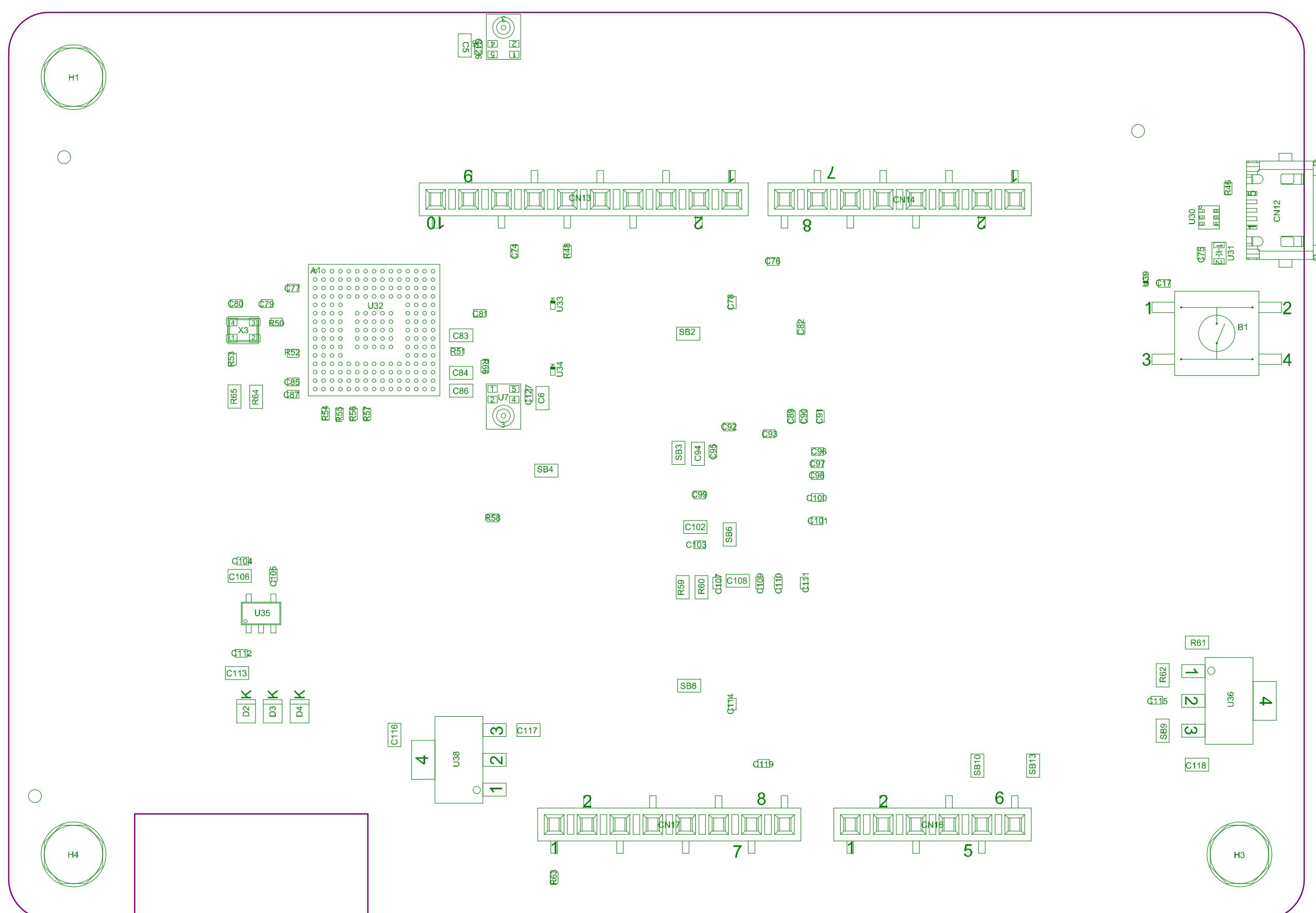
# Variant: U585I

Ref: MB1551

Date: 09 SEPT 2021

Rev: C





Project: B-U585I-IOT02A

Layer: M15-Bottom Assembly

Gerber:.GM15

Variant: U585I

Ref: MB1551

Date: 09 SEPT 2021

Rev: C

