

B-U585AI-IOT02A

MB1551

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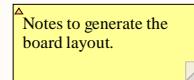
Sheet 1 : Project overview (this page)
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Legend

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

Text to be added to silkscreen.

Warning text.



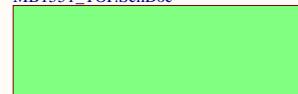
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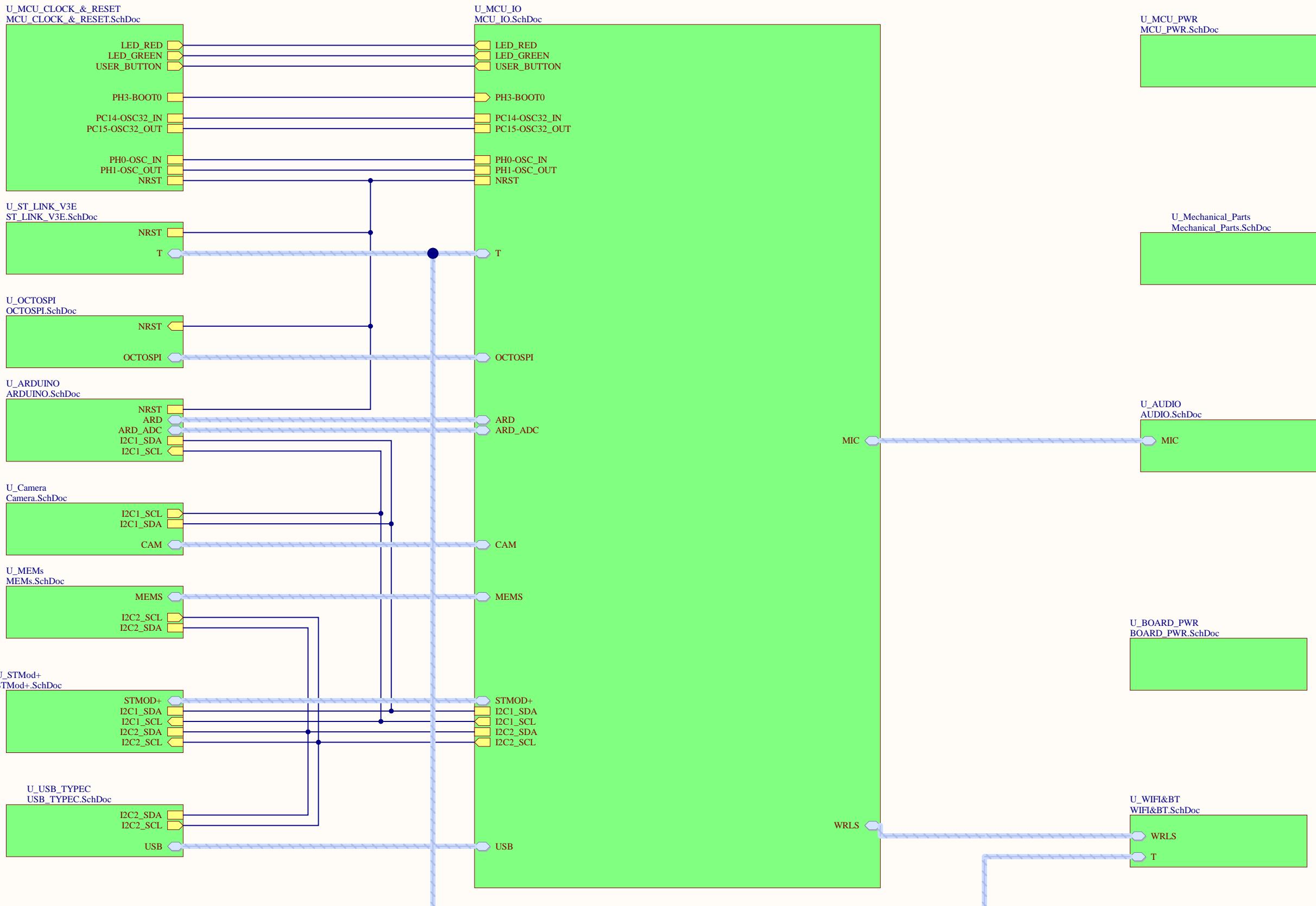
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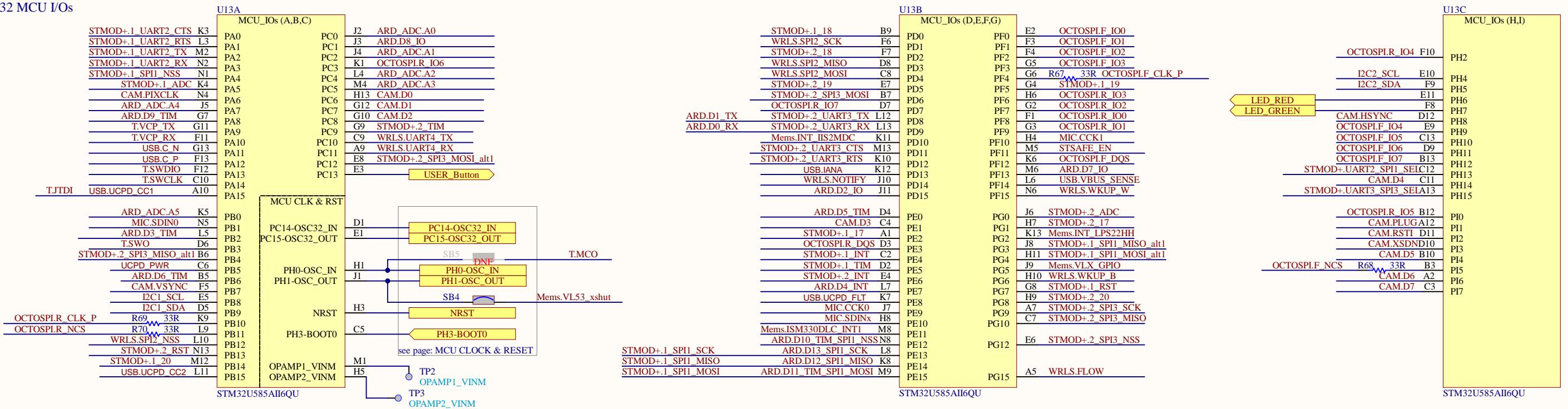
U_MB1551_TOP
MB1551_TOP.SchDoc

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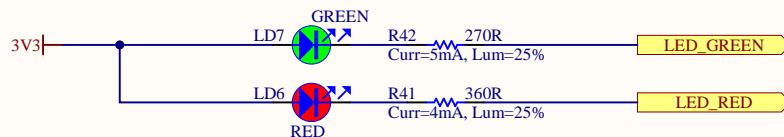
Title: Project overview	Project: B-U585AI-IOT02A	 life.augmented
Variant: U585AI	Revision: D-01	
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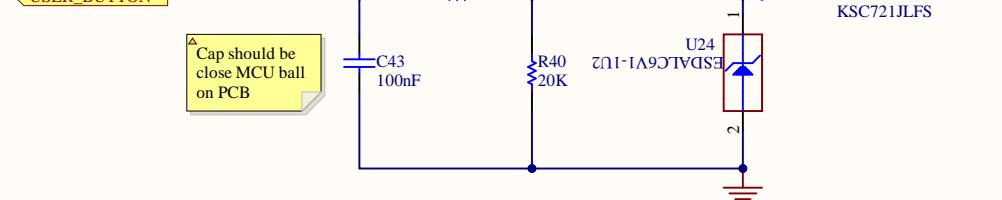
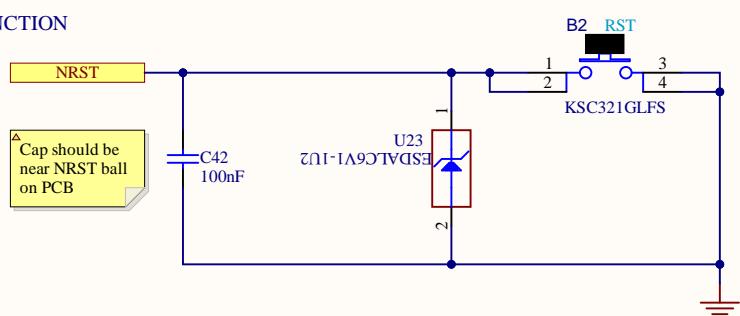
STM32 MCU I/Os



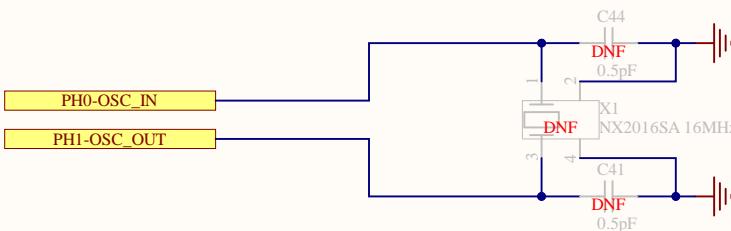
USER LEDs



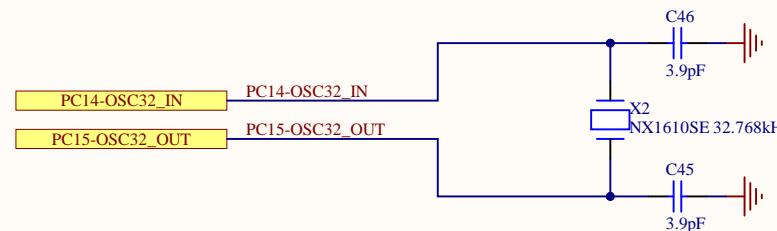
RESET FUNCTION



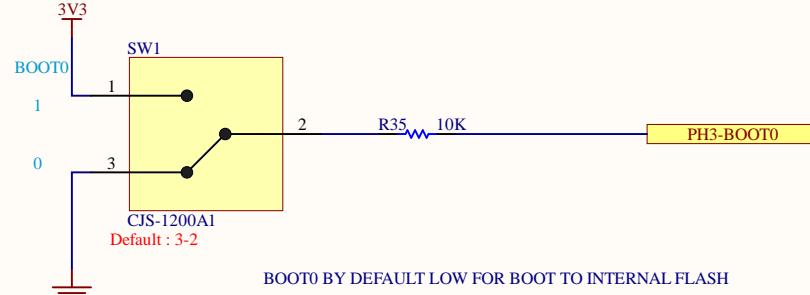
EXTERNAL HSE CLK



EXTERNAL LSE CLK



PH3_BOOT0



Title: MCU_CLOCK & RESET

Project: B-U585AI-IOT02A

Variant: U585AI

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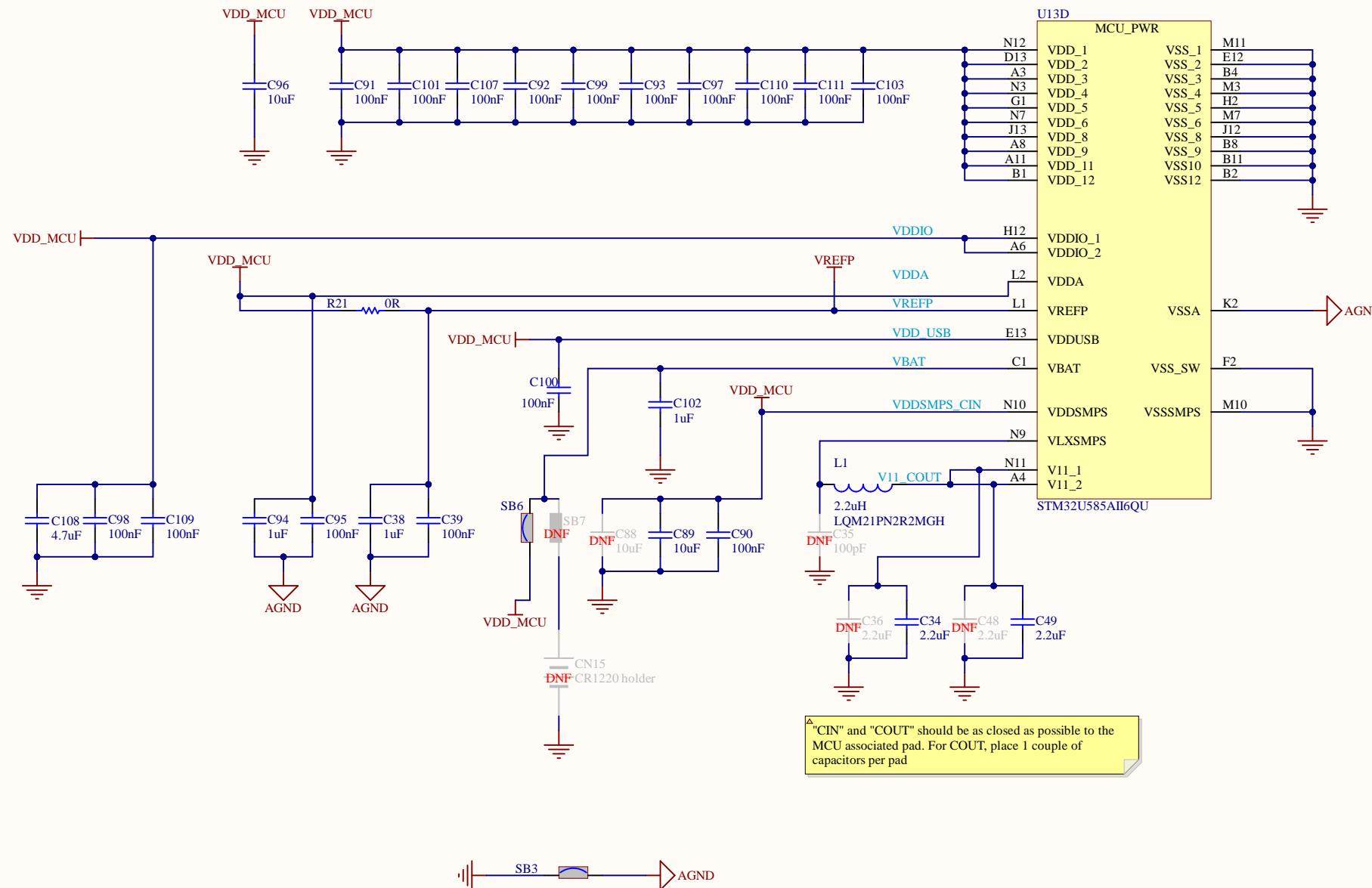
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life.augmented

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: MCUPWR

Project: B-U585AI-IOT02A

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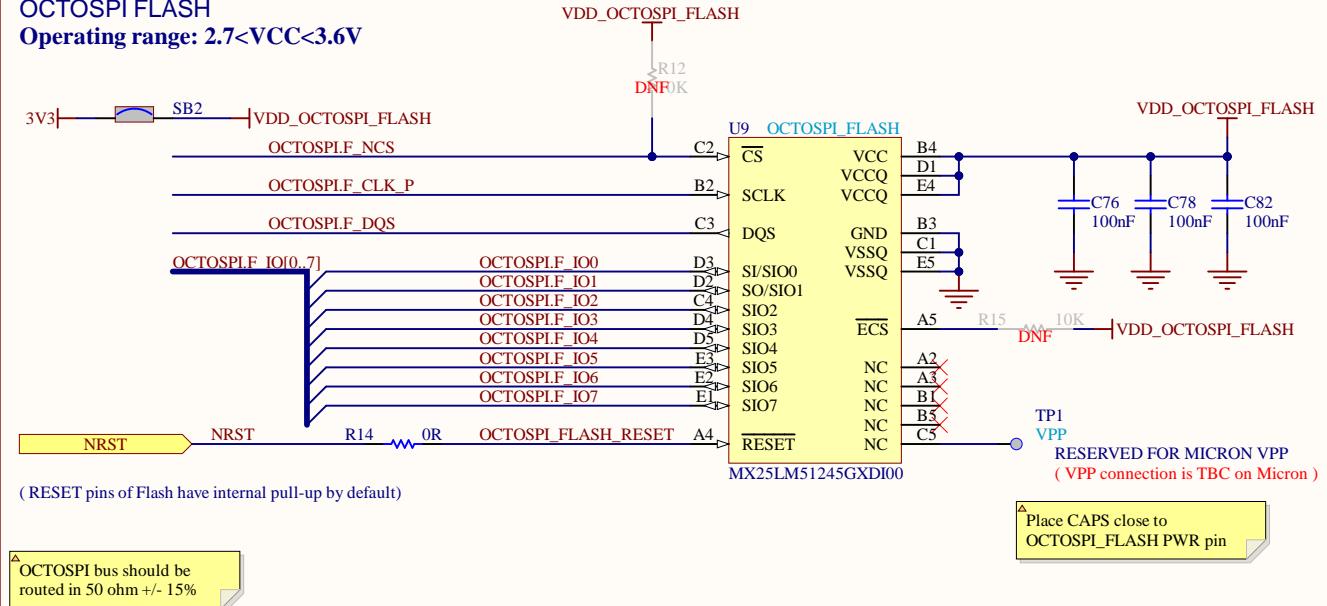


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Operating range: 2.7<VCC<3.6V



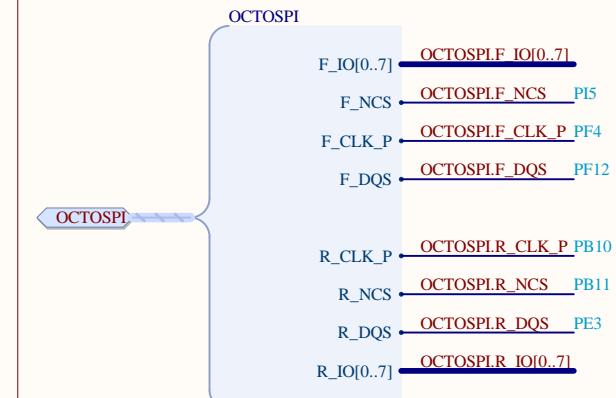
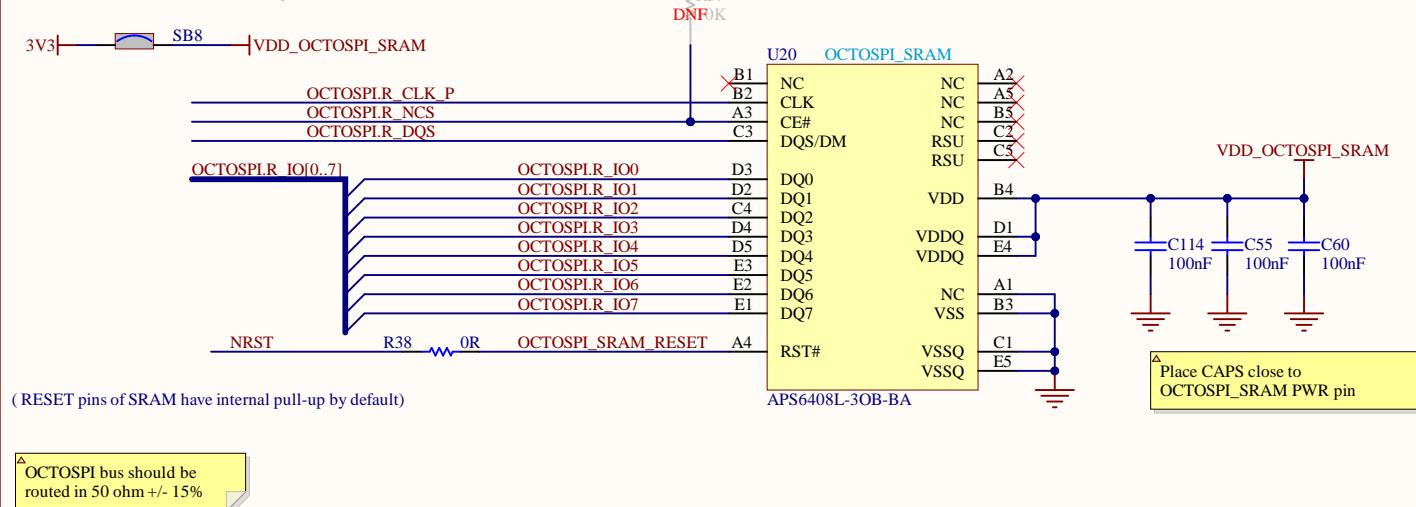
QUAD SRAM



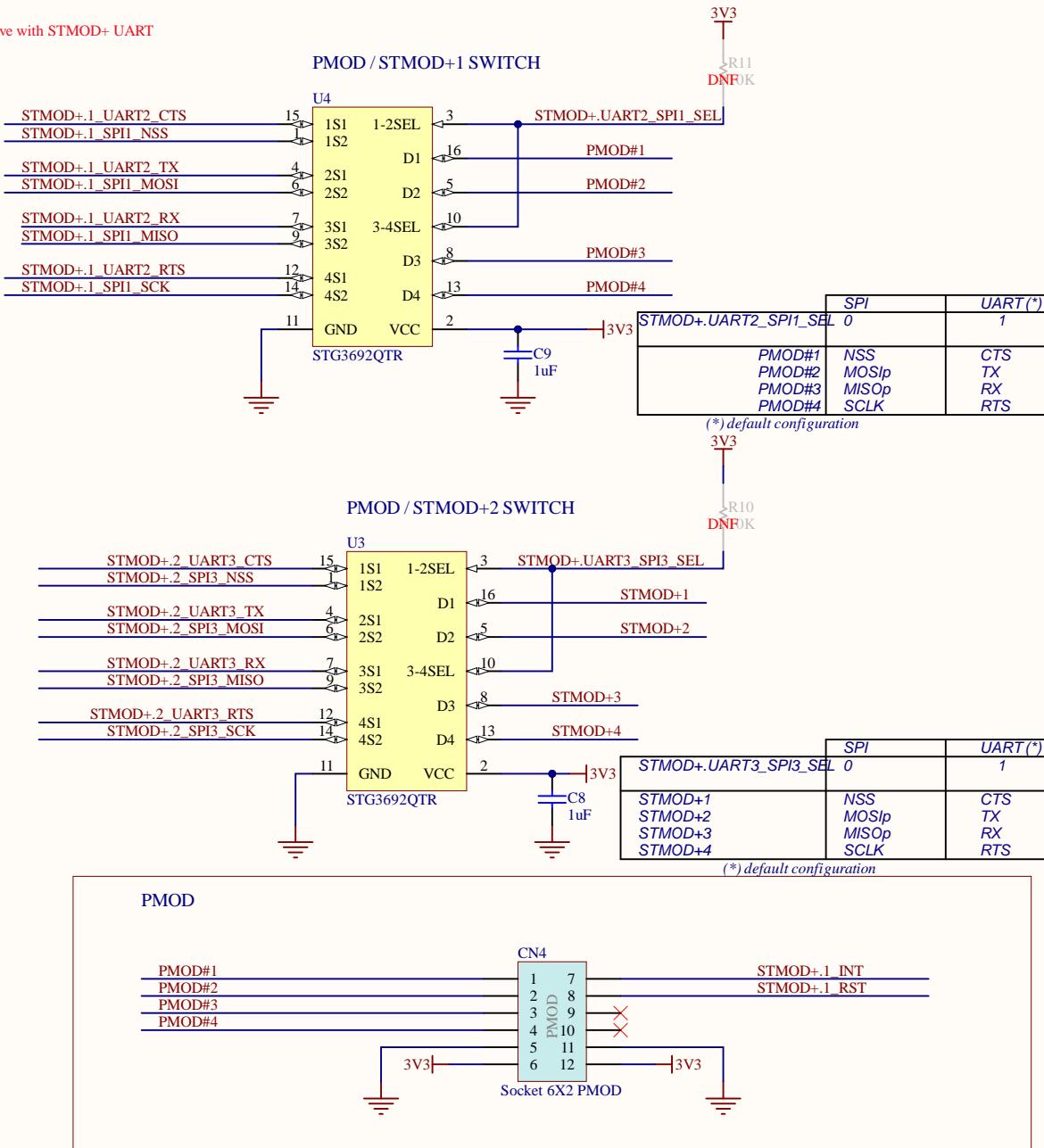
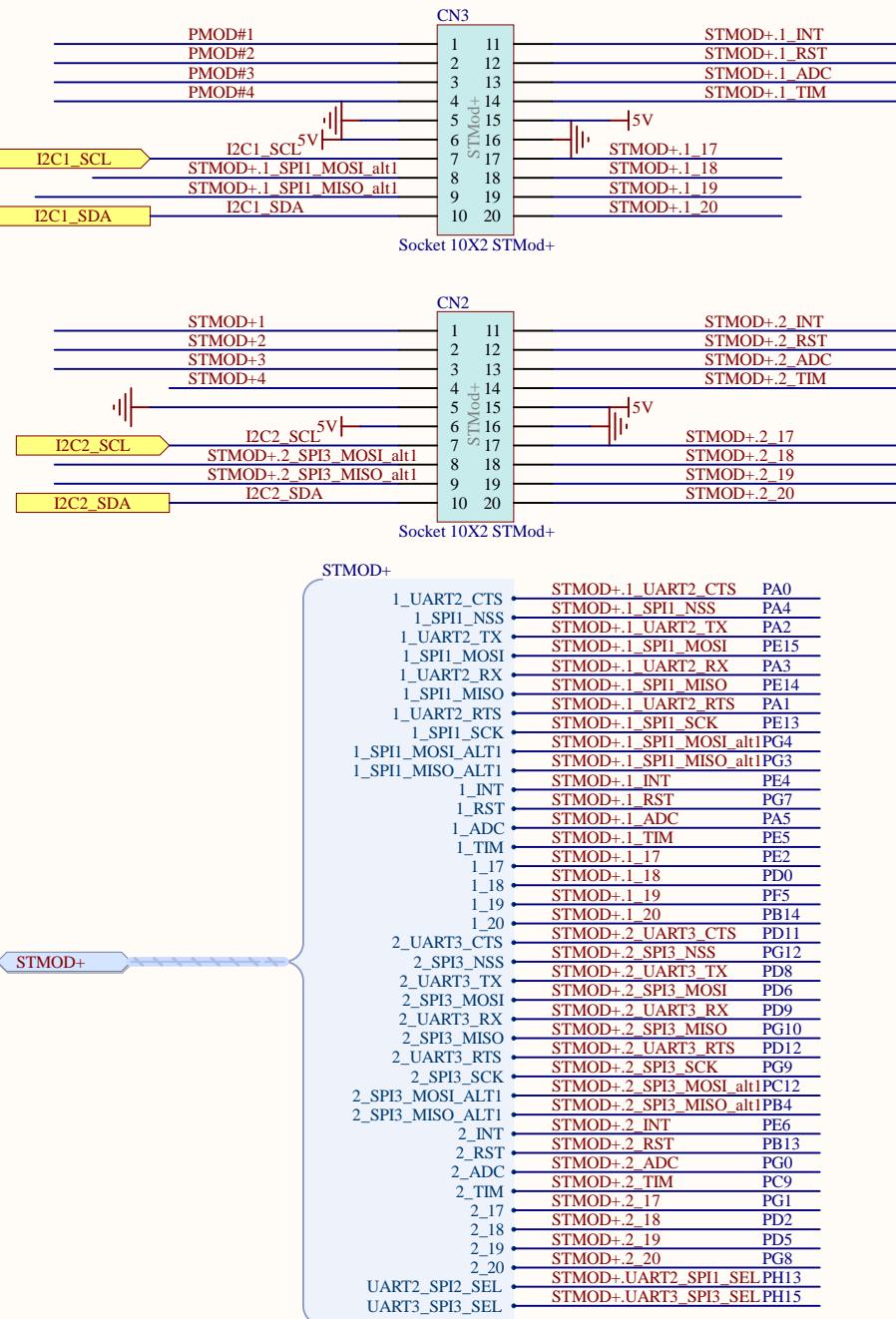
add the footprint to support APMemory QSPI in package SO8

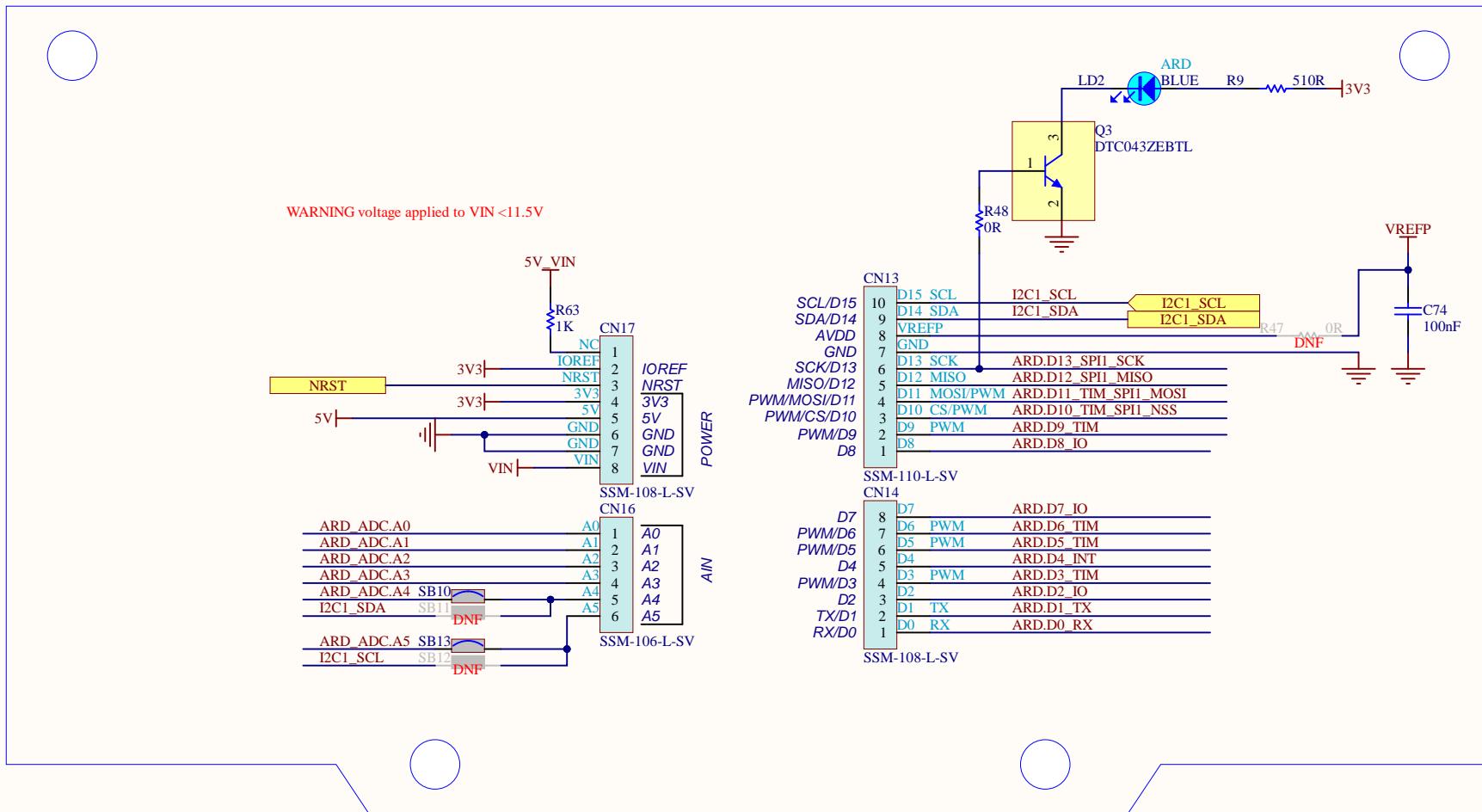
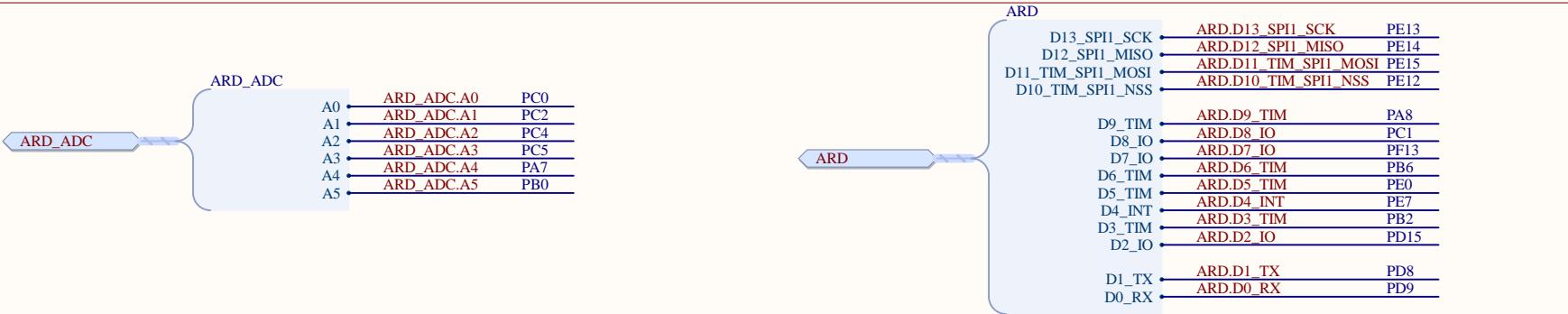
OCTOSPI SRAM

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

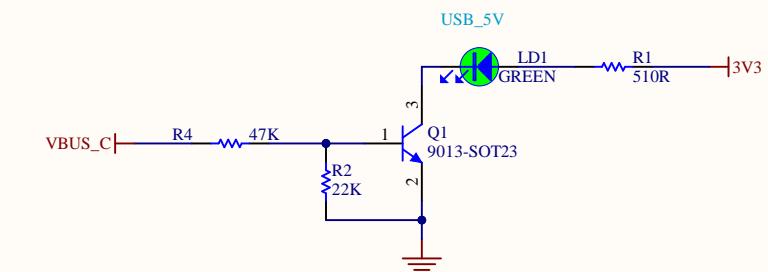
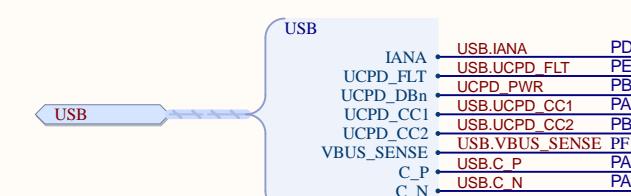
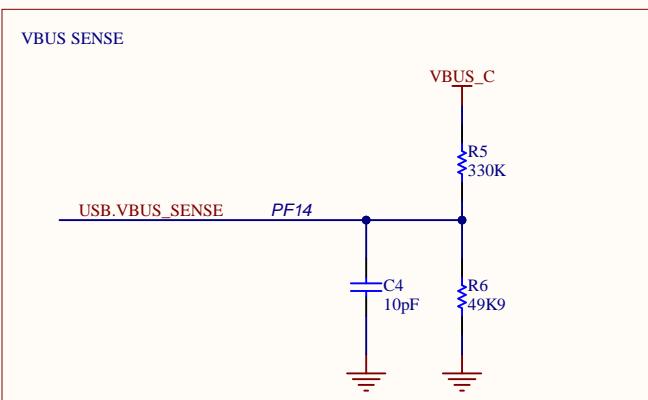
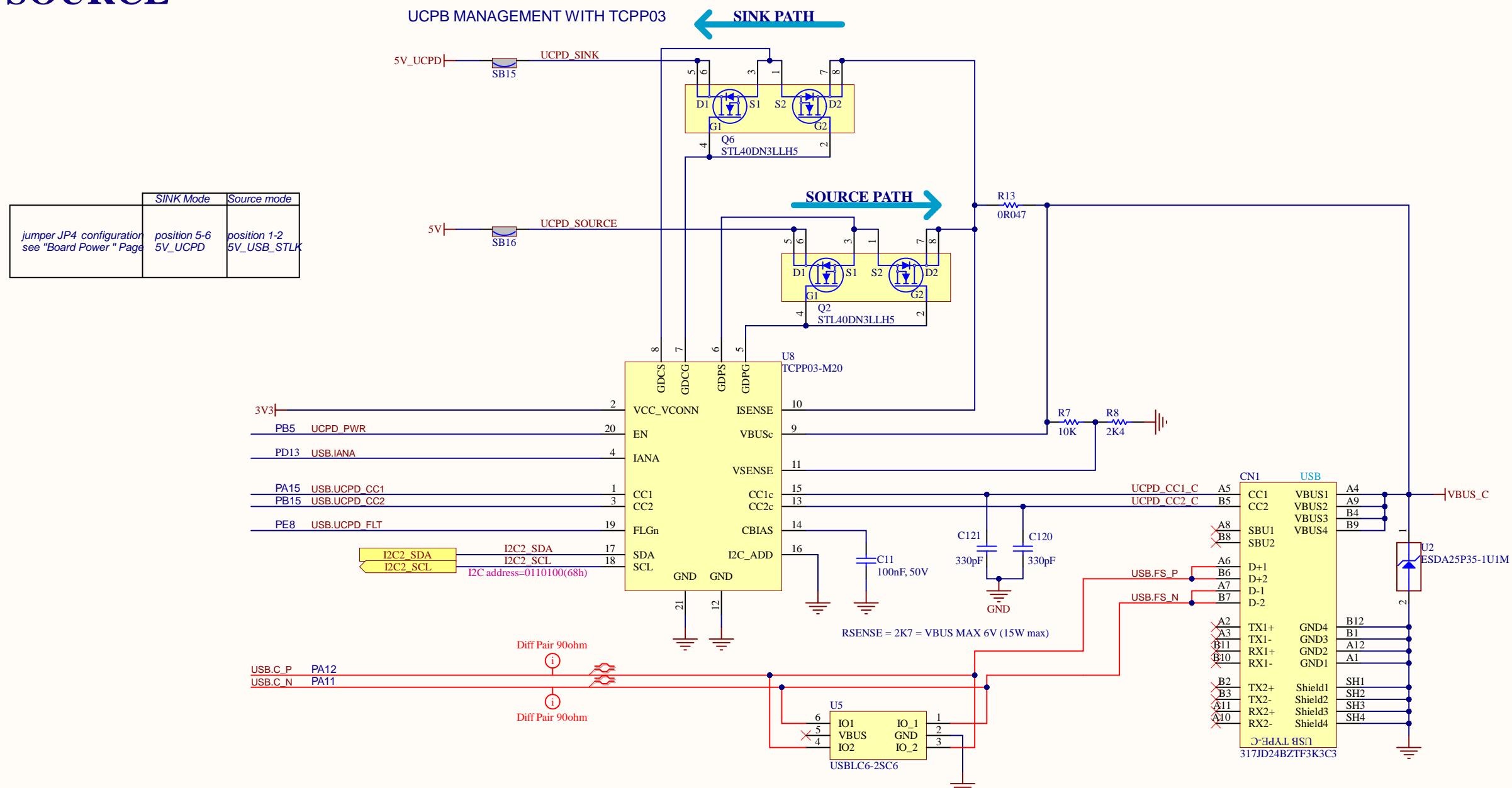


LIMITATION: Arduino UART exclusive with STMOD+ UART



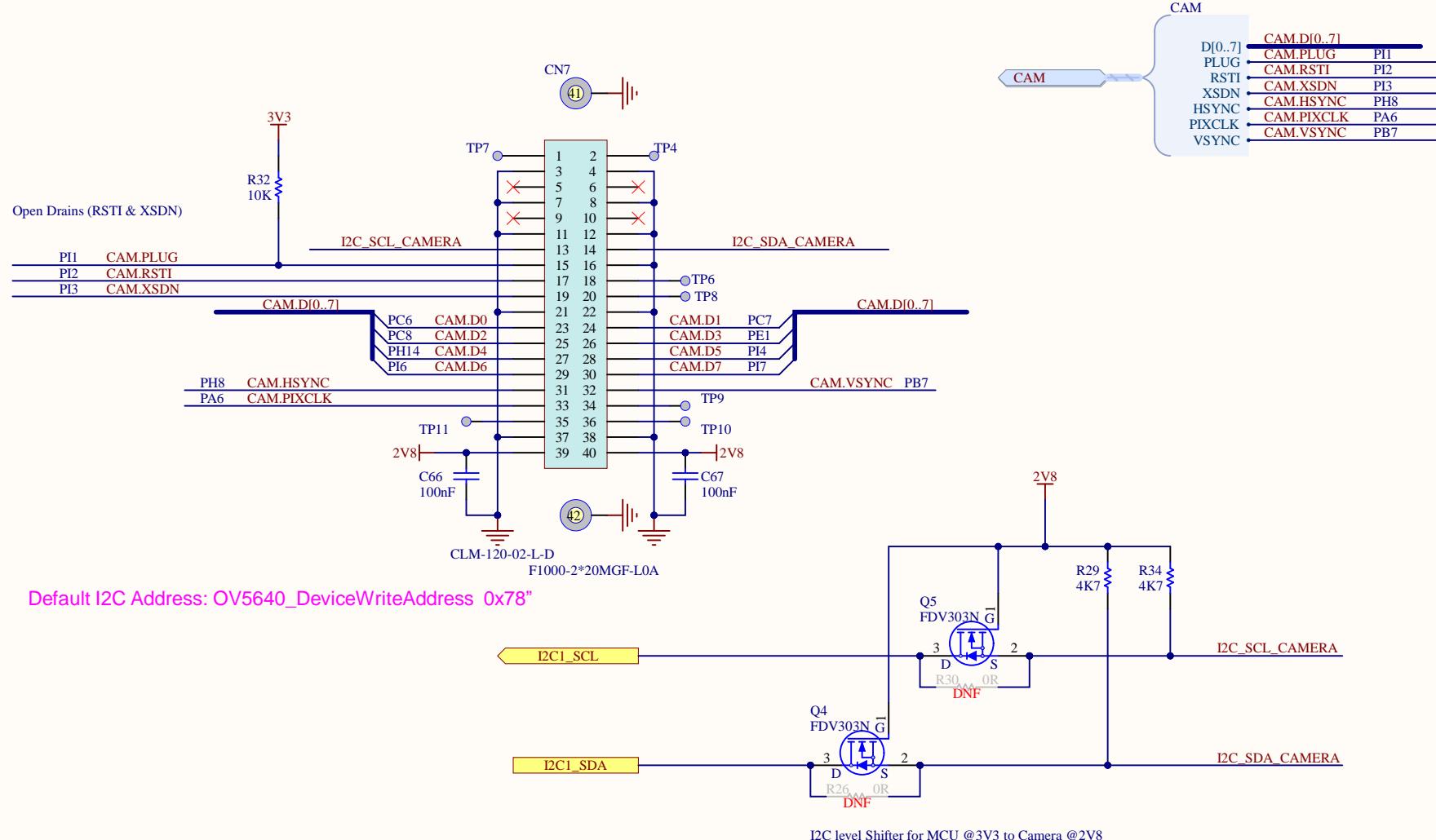


SINK and SOURCE



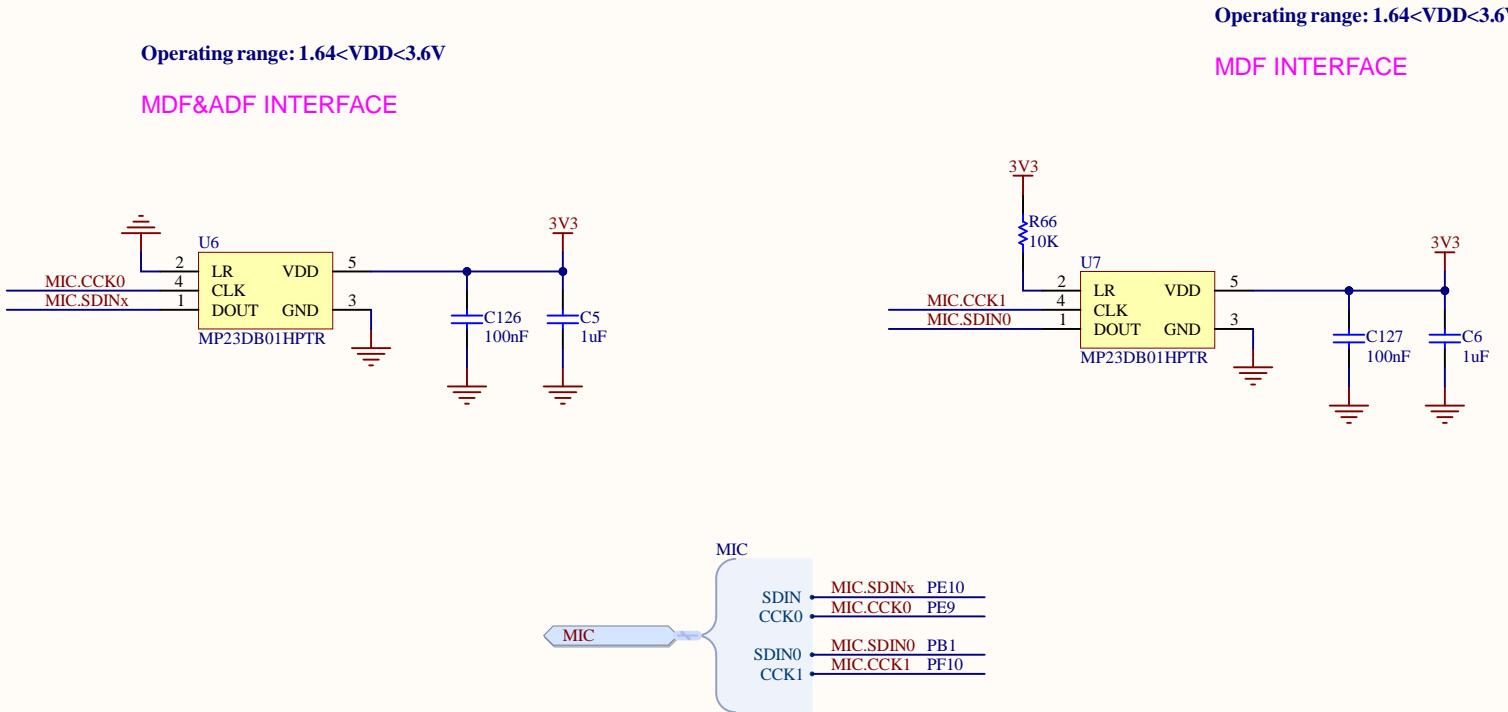
CAMERA MODULE CONNECTOR

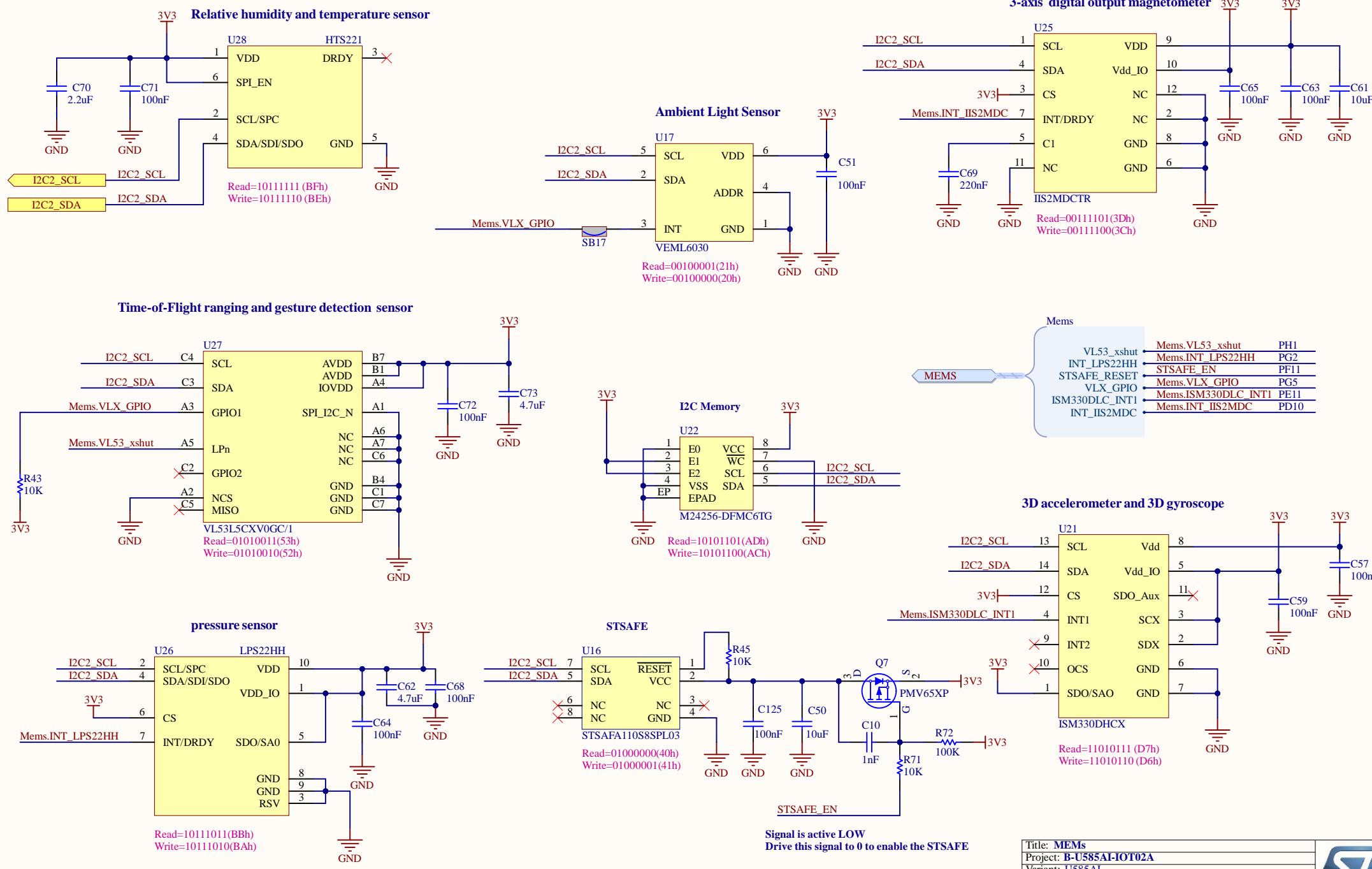
Operating range: 2.8<VDD<3.6V



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

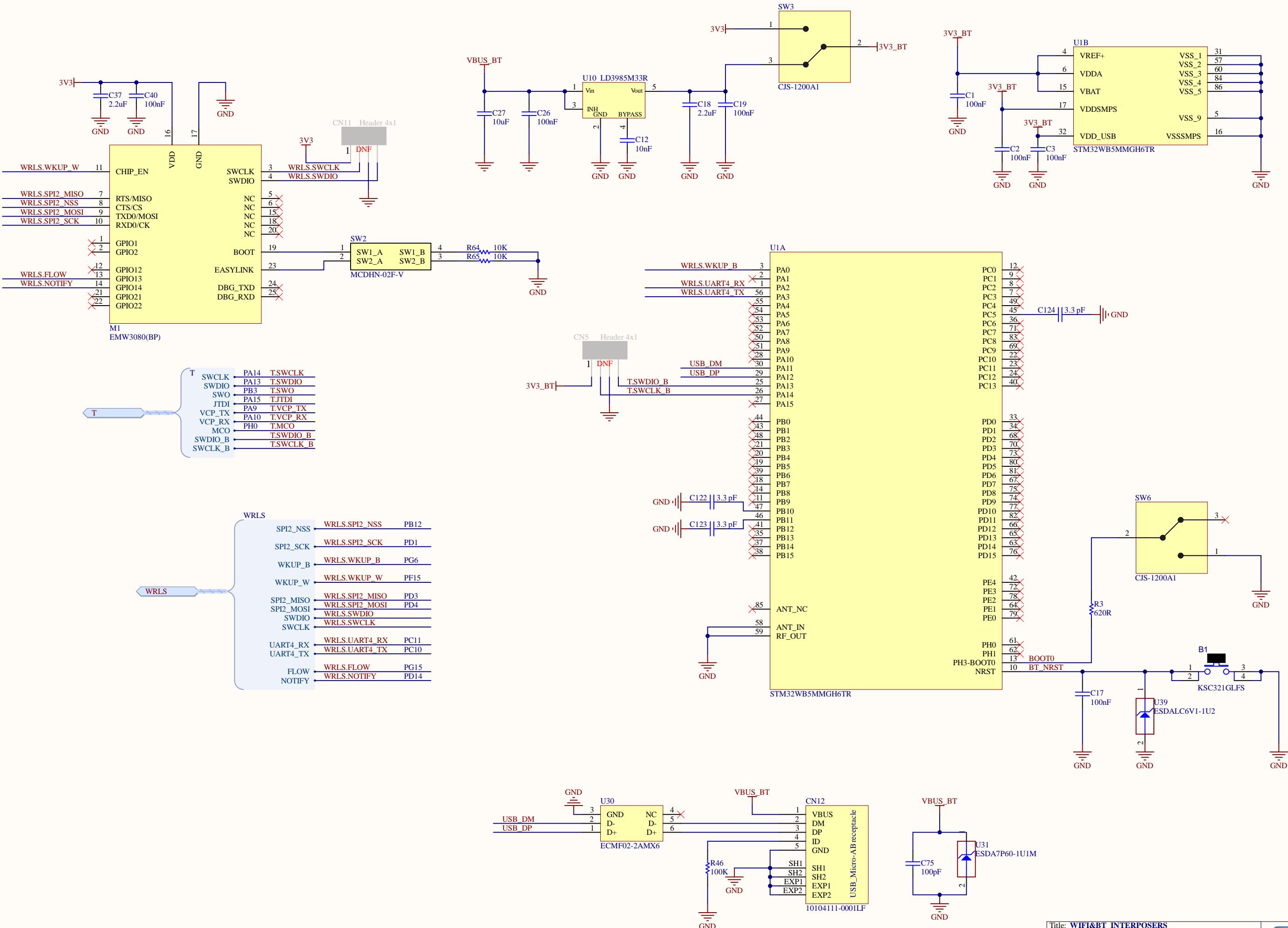
AUDIO MEMS



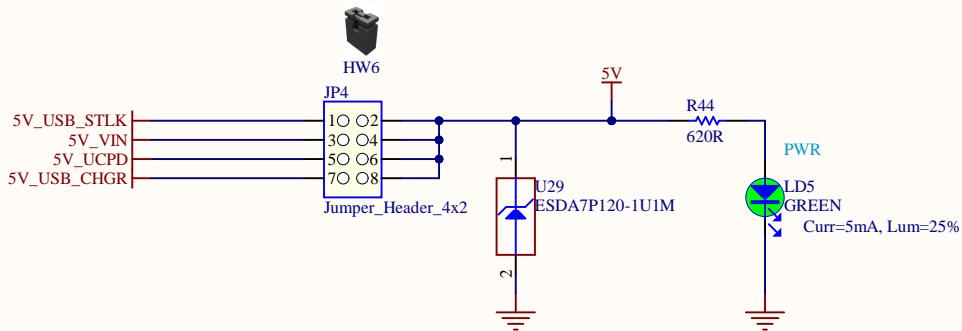


Signal is active LOW
Drive this signal to 0 to enable the STSAFE

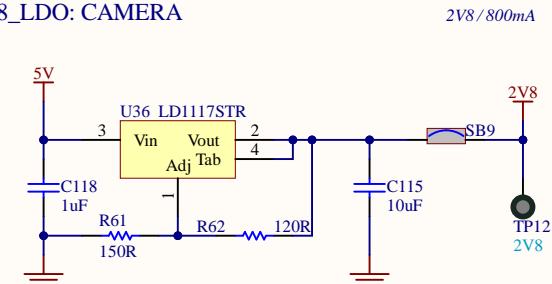
Title: MEMs	Project: B-U585AI-IOT02A	Variant: U585AI	 life...augmented
Revision: D-01	Reference: MB1551		
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5V PWR SOURCE SELECTION

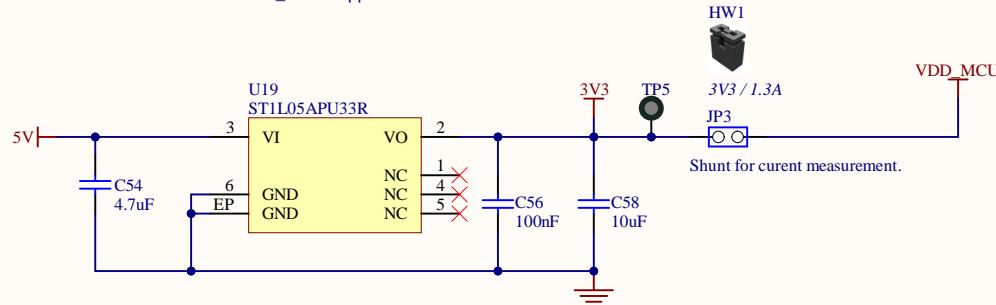


2V8_LDO: CAMERA

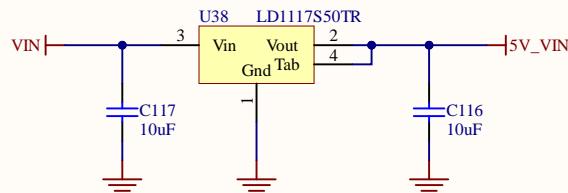


3V3 PWR SOURCE: 3V3 / 1300mA

3V3 and VDD MCU supplies



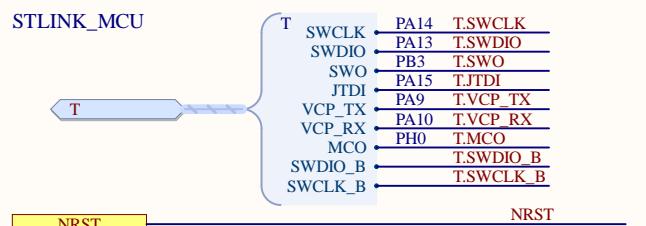
VIN FROM ARDUINO up to 12V: OUTPUT 5V / Up to 800mA (depend of VIN)



Title:	BOARD_PWR
Project:	B-U585AI-IOT02A
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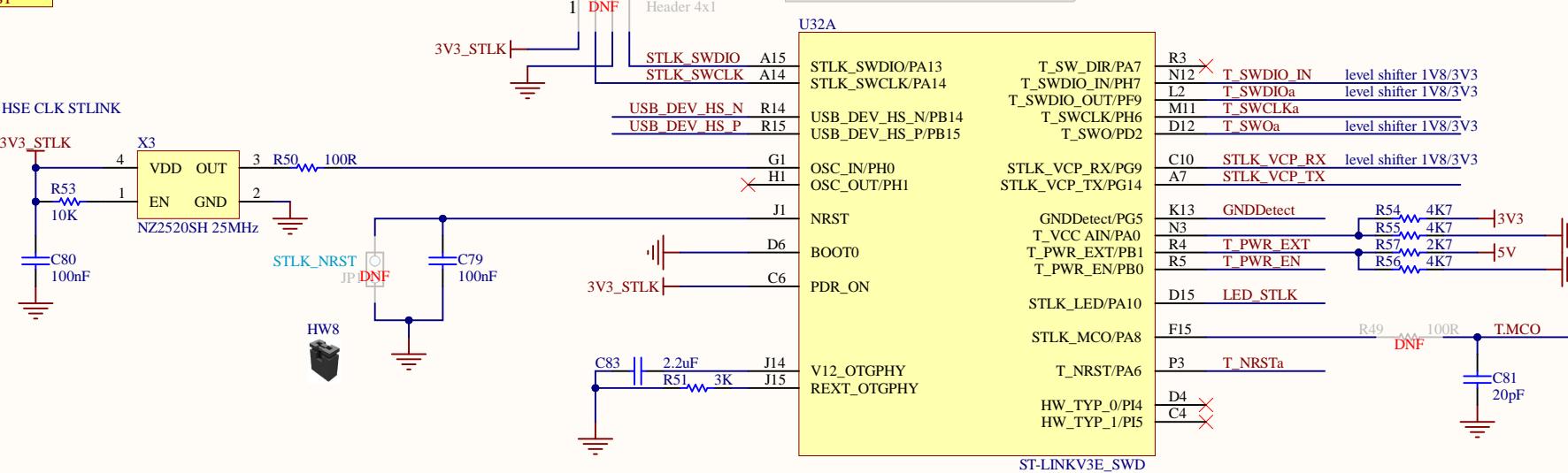


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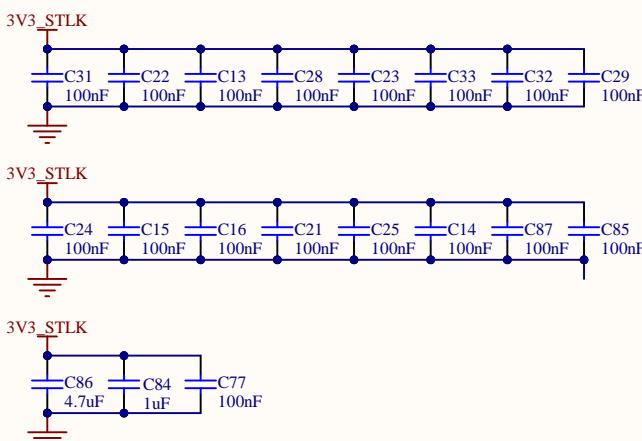
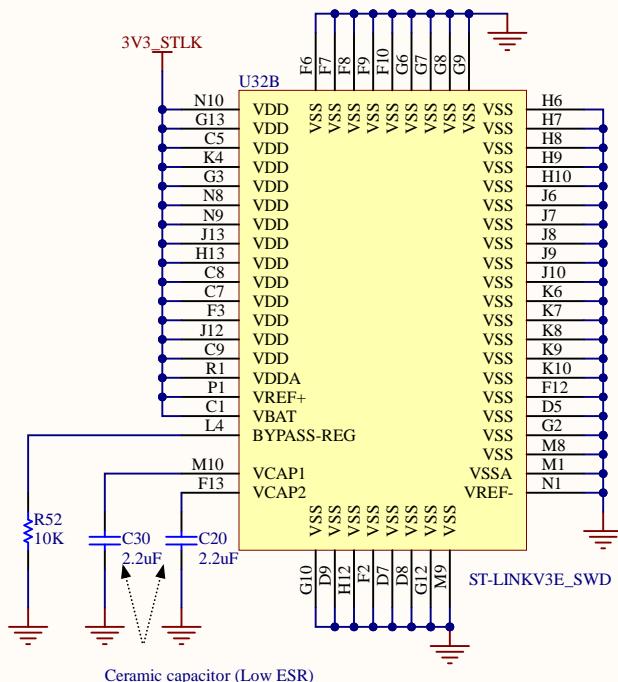
LIMITATION :

Some JTAG signals are multiplexed with UCPD: T_JTDI
In case JTAG is plugged, UCPD signals can be disconnected.
User need to check that multiplexed signals are not used on both features simultaneously.

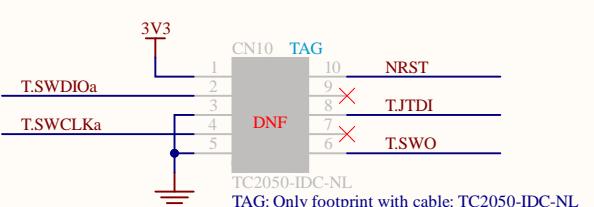


The routing of the tracks must be done on continuity from ST-LINK to 22ohm resistors and from resistors to Target MCU to avoid stub noises and EMC approach. (22ohm resistors must be very close to STDC14)

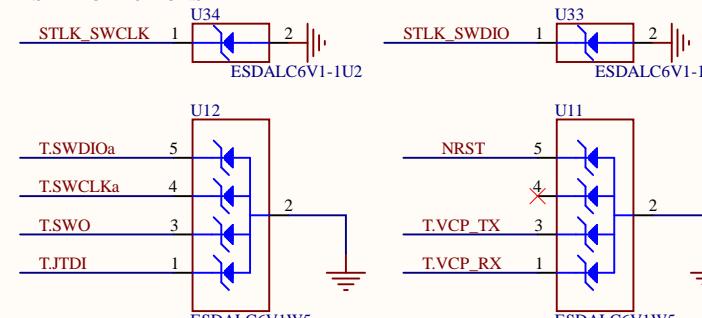
ST-LINK POWER



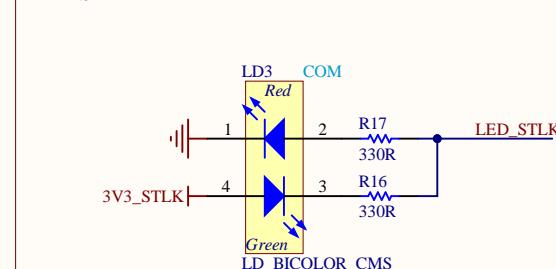
TAG CONNECTOR



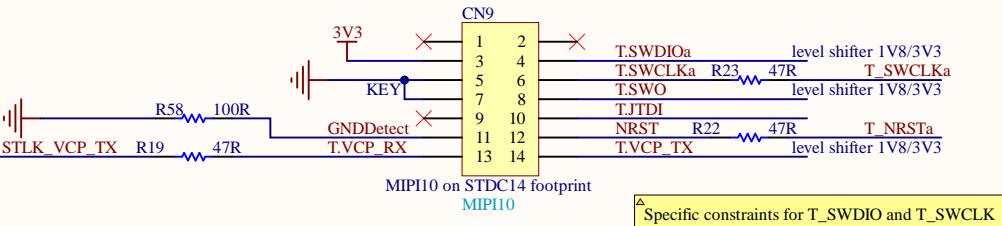
ESD PROTECTIONS



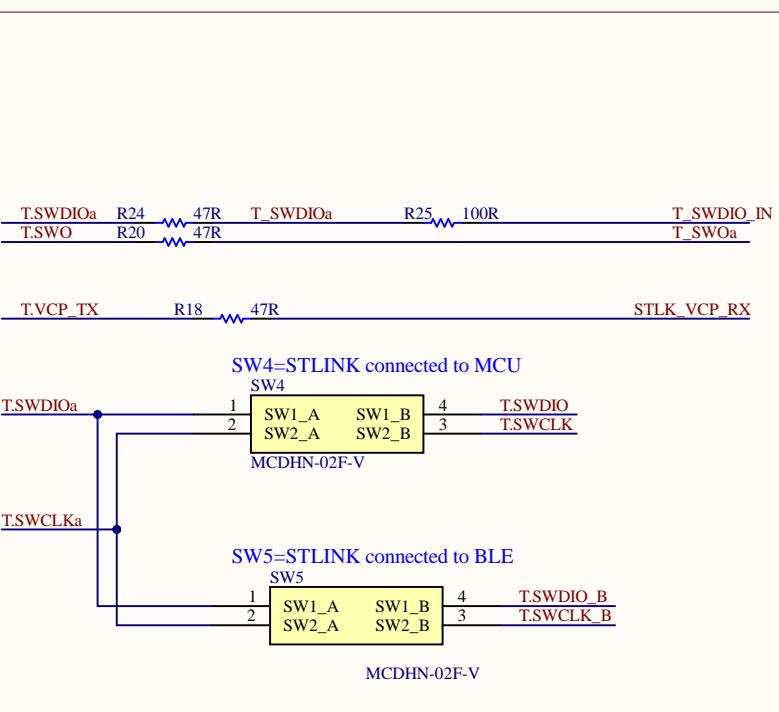
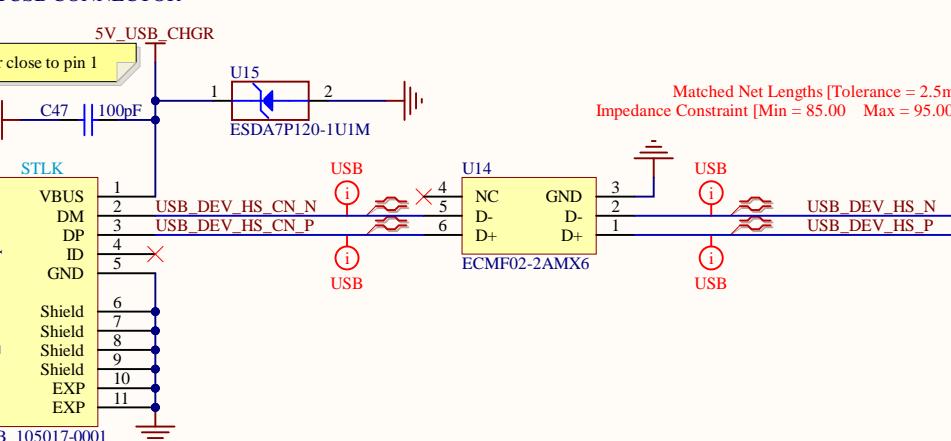
LED STLK



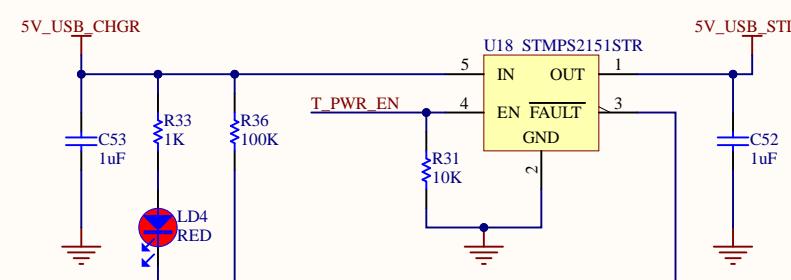
STDC14 RECEIVER



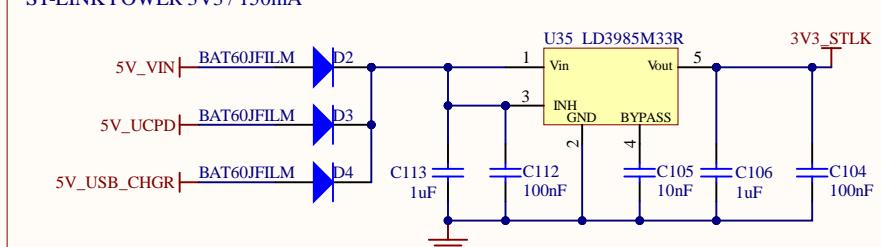
ST-LINK USB CONNECTOR



5V ST-LINK PROTECTION



ST-LINK POWER 3V3 / 150mA



PCB / STICKERS

HW3

DNF

HW4

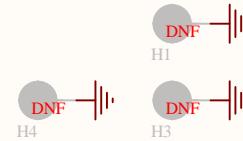
DNF

HW5

PCB

MB1551C

MECHANICAL PARTS



ADDED MODULES

Title: MECHANICAL PART

Project: B-U585AI-IOT02A

Variant: U585AI

Revision: D-01

Reference: MB1551

Size: A4 Date: 02 MAY 2022



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