

B-U585AI-IOT02A

MB1551

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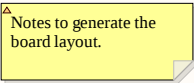
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Legend

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

Text to be added to silkscreen.

Warning text.



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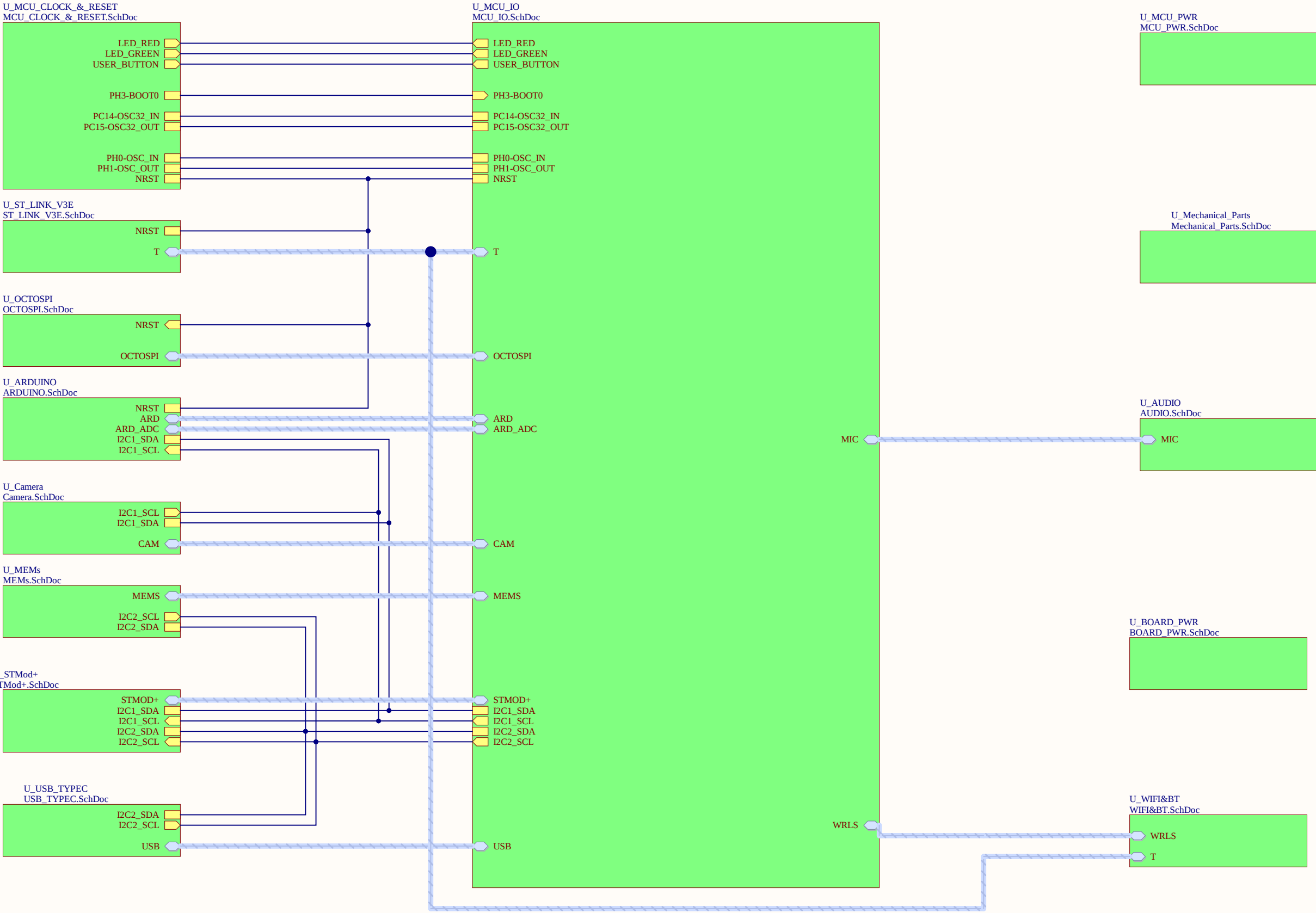
The complete Open Platform License Agreement can be found on www.st.com/opla.

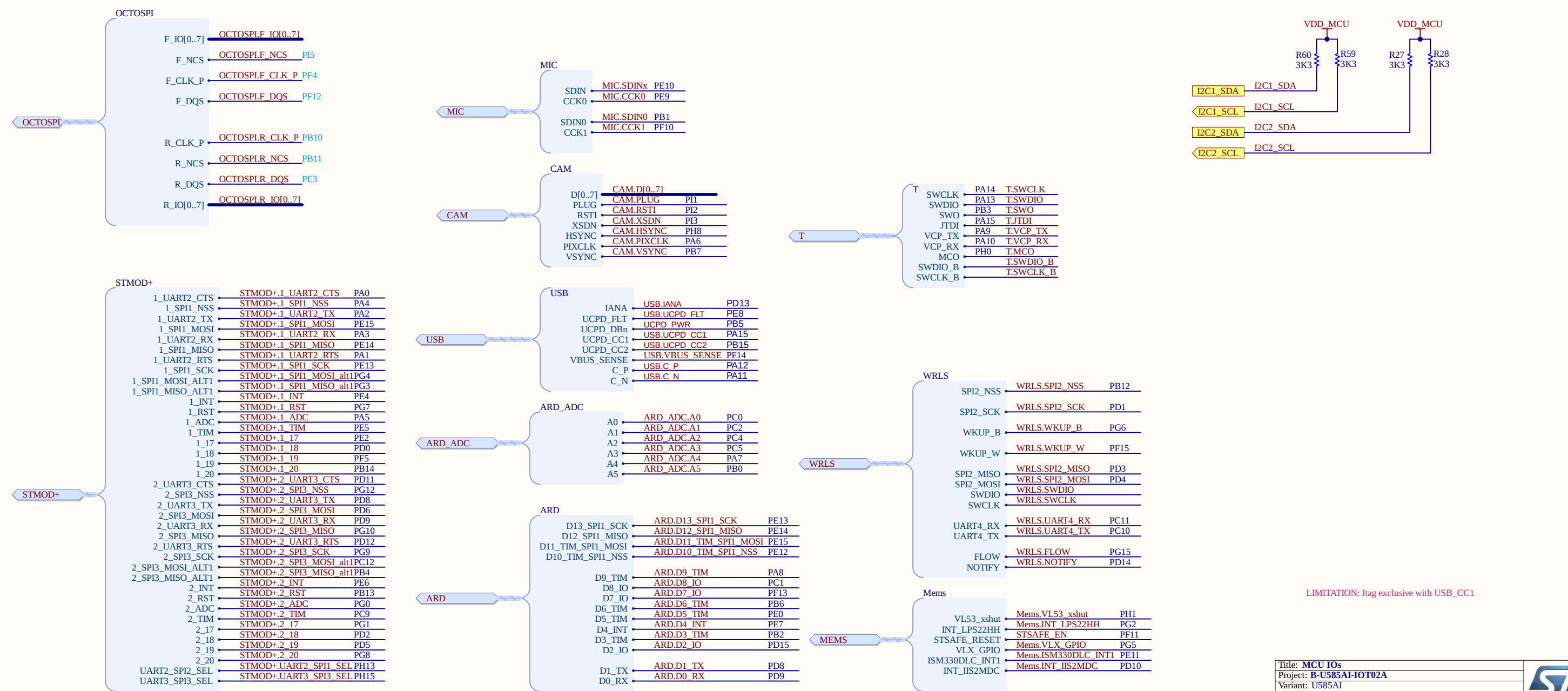
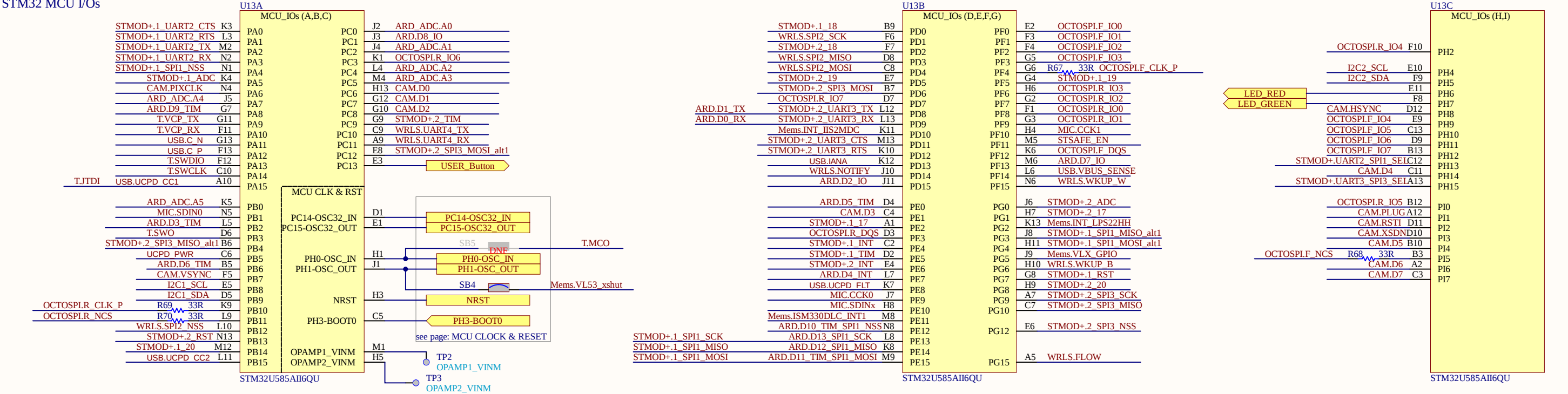
U_MB1551_TOP
MB1551_TOP.SchDoc



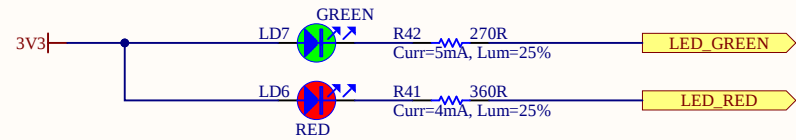
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Project: B-U585AI-IOT02A		
Variant: U585AI		
Revision: D-01	Reference: MB1551	
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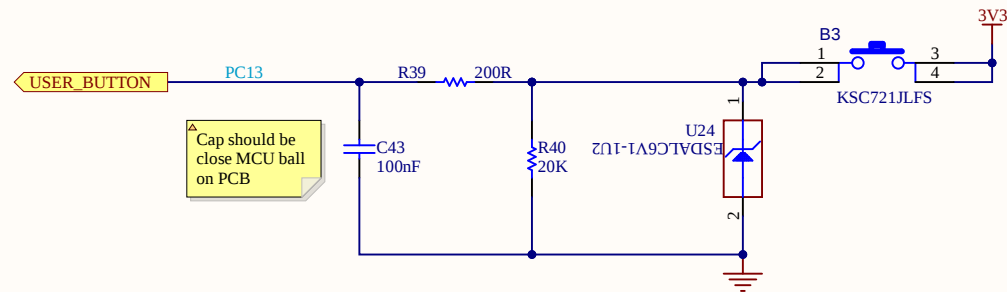
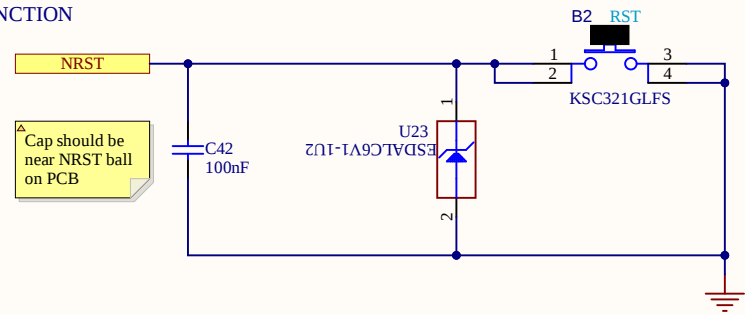




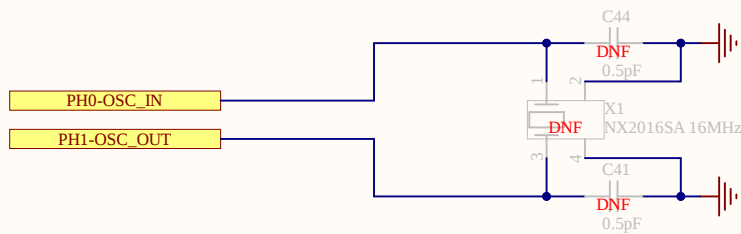
USER LEDs



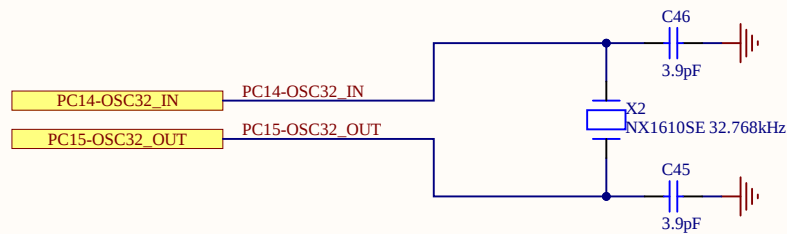
RESET FUNCTION



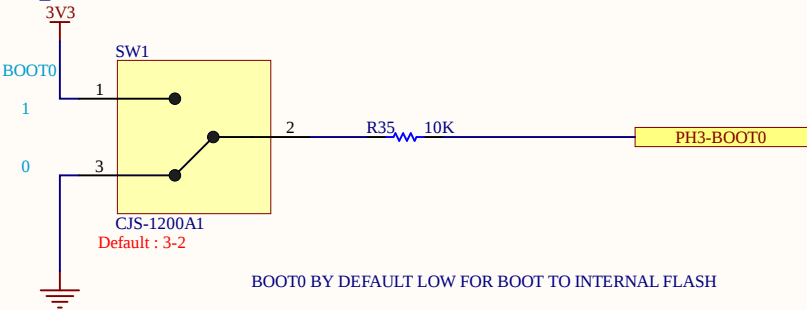
EXTERNAL HSE CLK



EXTERNAL LSE CLK

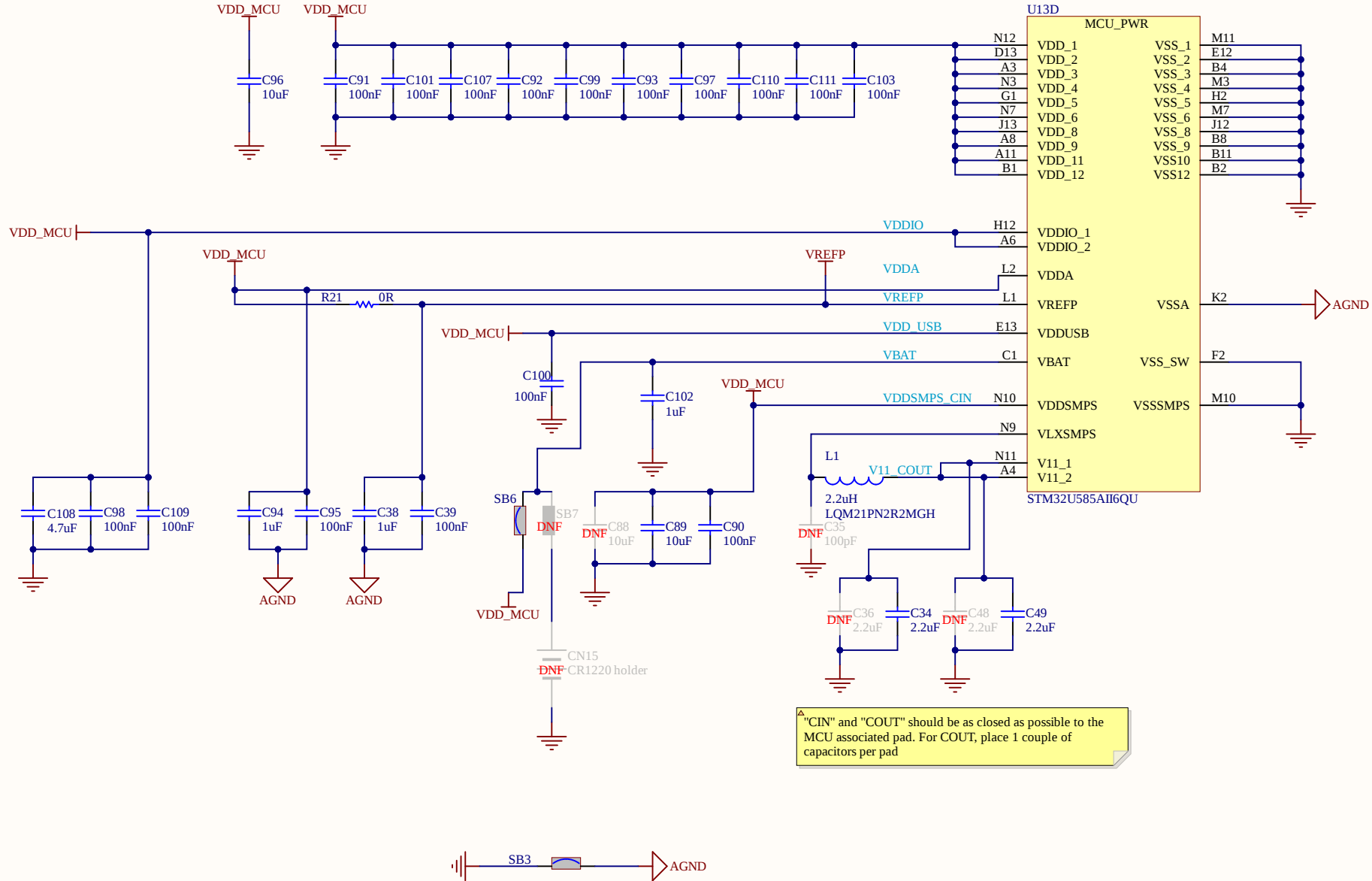


PH3_BOOT0



MCU PWR SUPPLIES

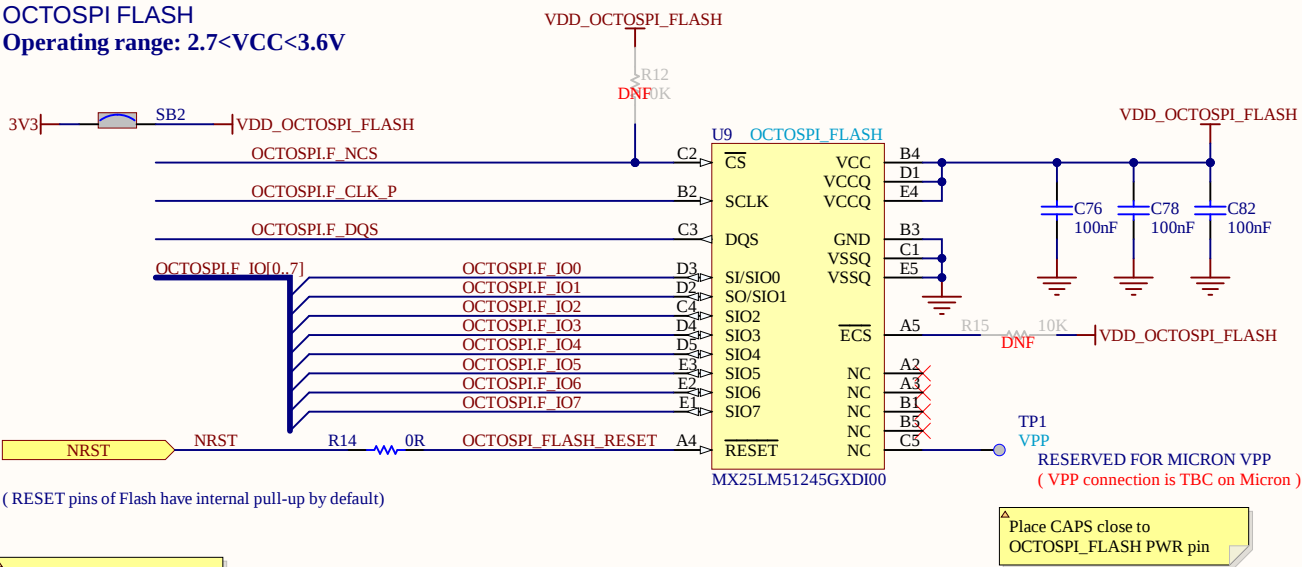
MCU DECAPS
Ceramic capacitor (Low ESR, ESR<1ohm)



Title: MCUPWR		
Project: B-U585AI-IOT02A		
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Revision: D-01		Reference: MB1551
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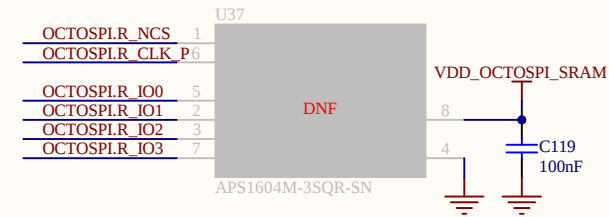
OCTOSPI FLASH
Operating range: 2.7<VCC<3.6V



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

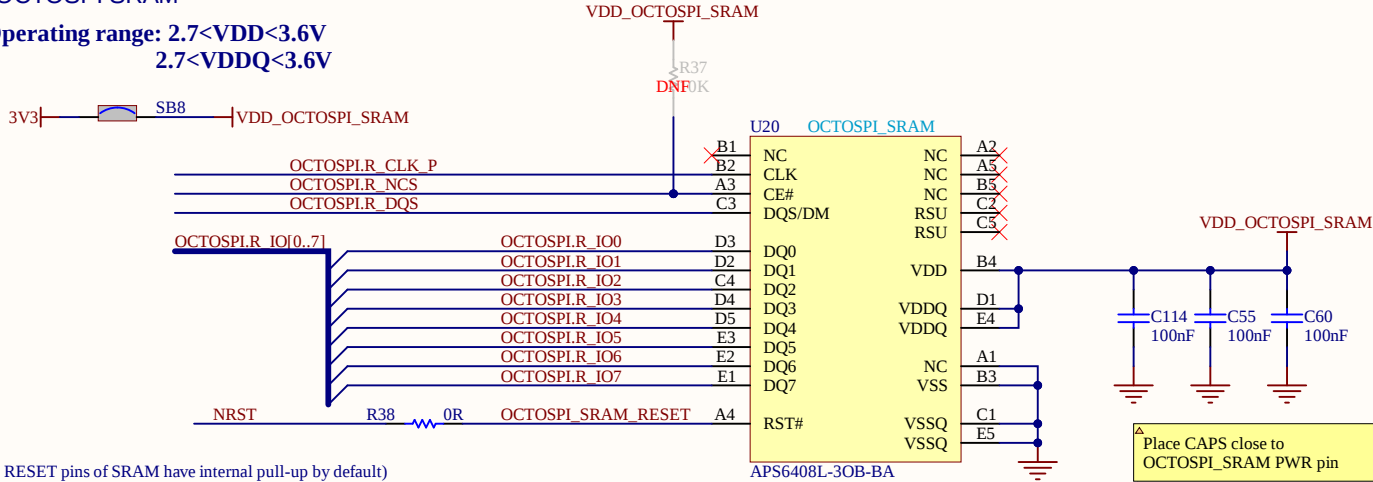
^A Place CAPS close to OCTOSPI_FLASH PWR pin

QUAD SRAM



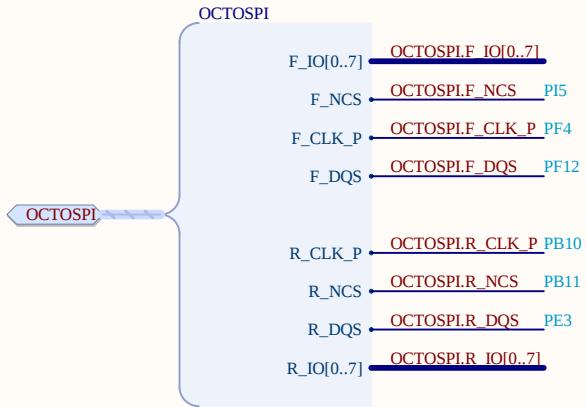
add the footprint to support APMemory QSPI in package SO8

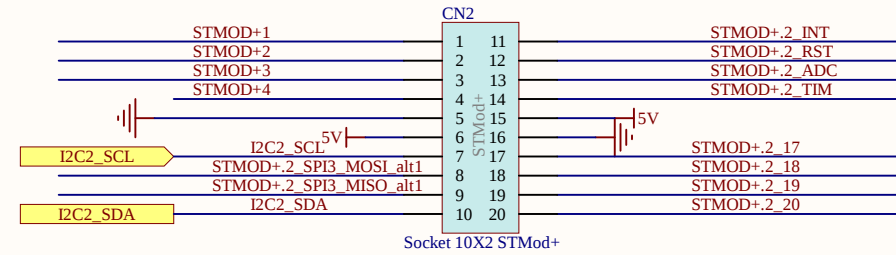
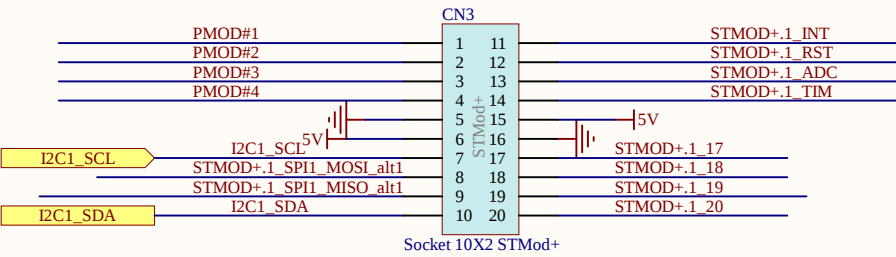
OCTOSPI SRAM
Operating range: 2.7<VDD<3.6V
2.7<VDDQ<3.6V



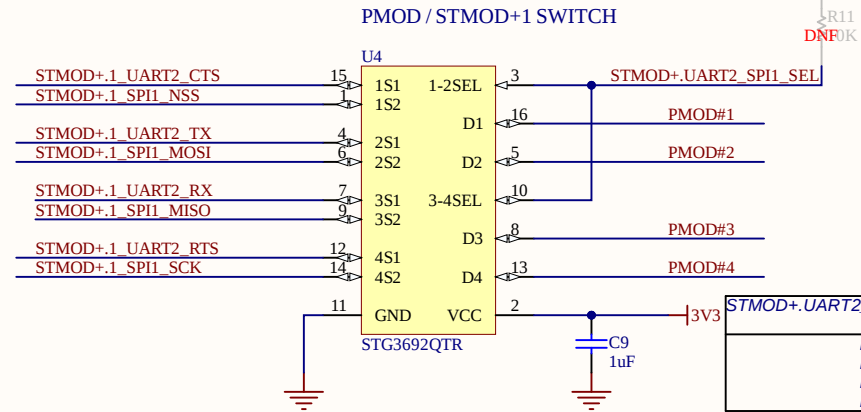
^A OCTOSPI bus should be routed in 50 ohm +/- 15%

^A Place CAPS close to OCTOSPI_SRAM PWR pin



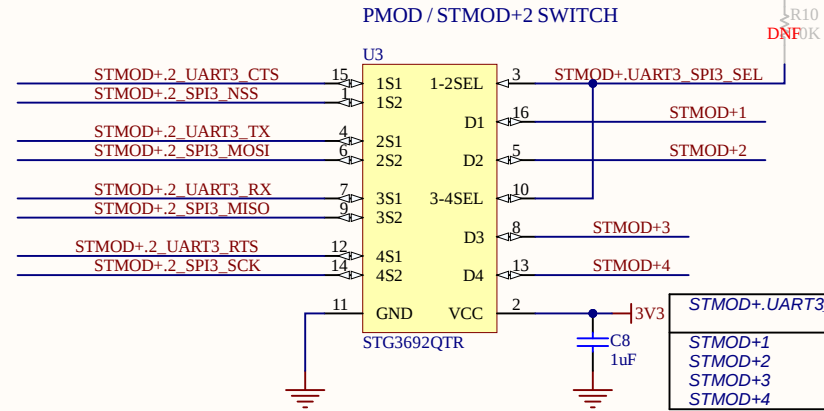


STMOD+	1_UART2_CTS	STMOD+1_UART2_CTS	PA0
	1_SPI1_NSS	STMOD+1_SPI1_NSS	PA4
	1_UART2_TX	STMOD+1_UART2_TX	PA2
	1_SPI1_MOSI	STMOD+1_SPI1_MOSI	PE15
	1_UART2_RX	STMOD+1_UART2_RX	PA3
	1_SPI1_MISO	STMOD+1_SPI1_MISO	PE14
	1_UART2_RTS	STMOD+1_UART2_RTS	PA1
	1_SPI1_SCK	STMOD+1_SPI1_SCK	PE13
	1_SPI1_MOSI_ALT1	STMOD+1_SPI1_MOSI_alt1	PG4
	1_SPI1_MISO_ALT1	STMOD+1_SPI1_MISO_alt1	PG3
	1_INT	STMOD+1_INT	PE4
	1_RST	STMOD+1_RST	PG7
	1_ADC	STMOD+1_ADC	PA5
	1_TIM	STMOD+1_TIM	PE5
	1_17	STMOD+1_17	PE2
	1_18	STMOD+1_18	PD0
	1_19	STMOD+1_19	PF5
	1_20	STMOD+1_20	PB14
	2_UART3_CTS	STMOD+2_UART3_CTS	PD11
	2_SPI3_NSS	STMOD+2_SPI3_NSS	PG12
	2_UART3_TX	STMOD+2_UART3_TX	PD8
	2_SPI3_MOSI	STMOD+2_SPI3_MOSI	PD6
	2_UART3_RX	STMOD+2_UART3_RX	PD9
	2_SPI3_MISO	STMOD+2_SPI3_MISO	PG10
	2_UART3_RTS	STMOD+2_UART3_RTS	PD12
	2_SPI3_SCK	STMOD+2_SPI3_SCK	PG9
	2_SPI3_MOSI_ALT1	STMOD+2_SPI3_MOSI_alt1	PC12
	2_SPI3_MISO_ALT1	STMOD+2_SPI3_MISO_alt1	PB4
	2_INT	STMOD+2_INT	PE6
	2_RST	STMOD+2_RST	PB13
	2_ADC	STMOD+2_ADC	PG0
	2_TIM	STMOD+2_TIM	PC9
	2_17	STMOD+2_17	PG1
	2_18	STMOD+2_18	PD2
	2_19	STMOD+2_19	PD5
	2_20	STMOD+2_20	PG8
	UART2_SPI2_SEL	STMOD+UART2_SPI1_SEL	PH13
	UART3_SPI3_SEL	STMOD+UART3_SPI3_SEL	PH15



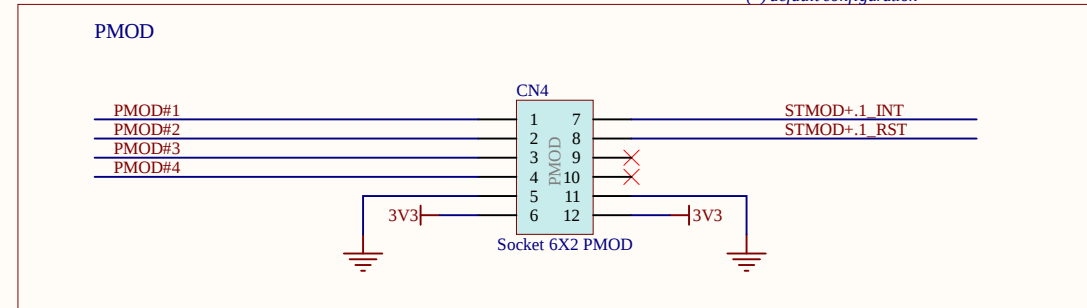
	SPI	UART (*)
STMOD+.UART2_SPI1_SEL	0	1
PMOD#1	NSS	CTS
PMOD#2	MOSI _p	TX
PMOD#3	MISO _p	RX
PMOD#4	SCLK	RTS

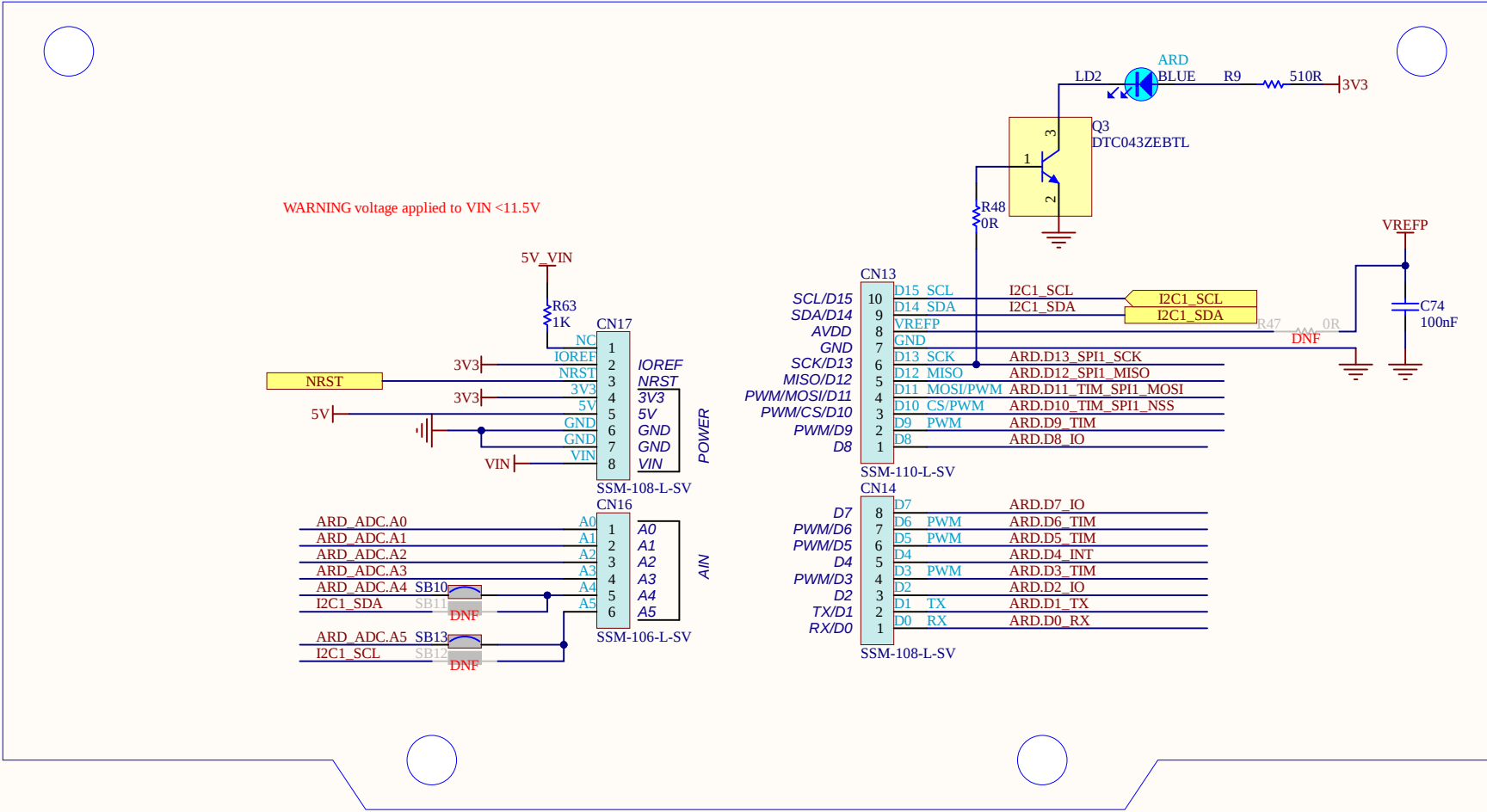
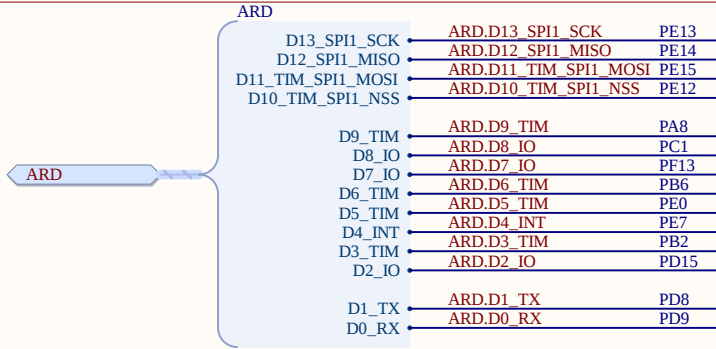
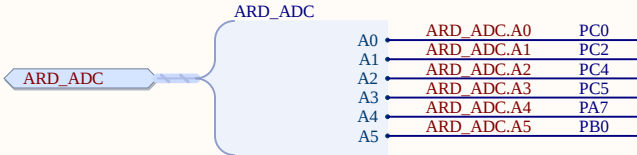
(*) default configuration



	SPI	UART (*)
STMOD+.UART3_SPI3_SEL	0	1
STMOD+1	NSS	CTS
STMOD+2	MOSI _p	TX
STMOD+3	MISO _p	RX
STMOD+4	SCLK	RTS

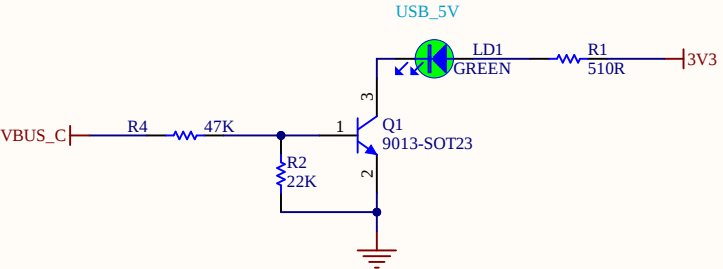
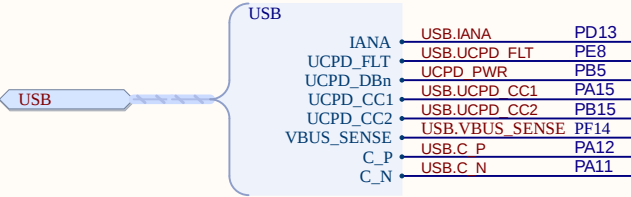
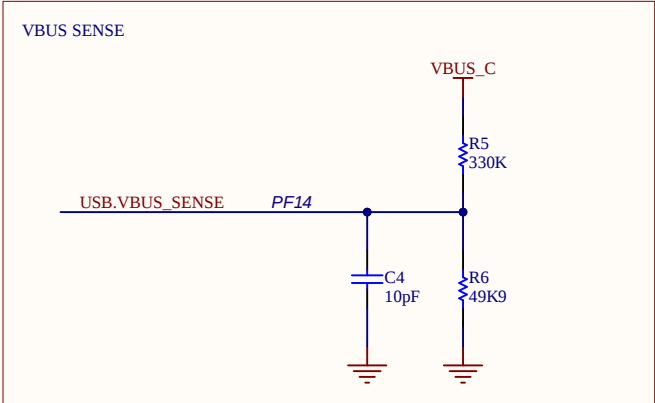
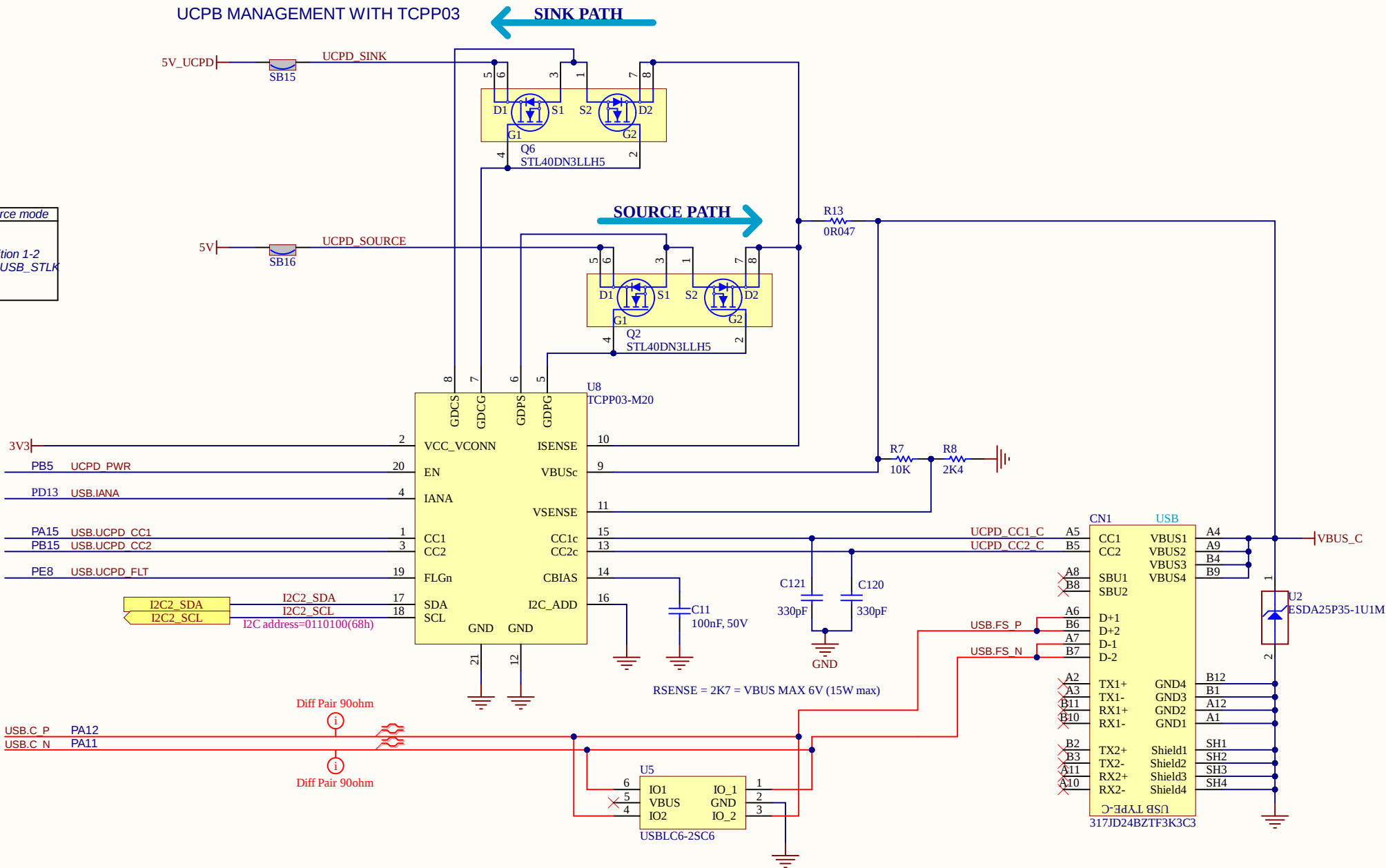
(*) default configuration





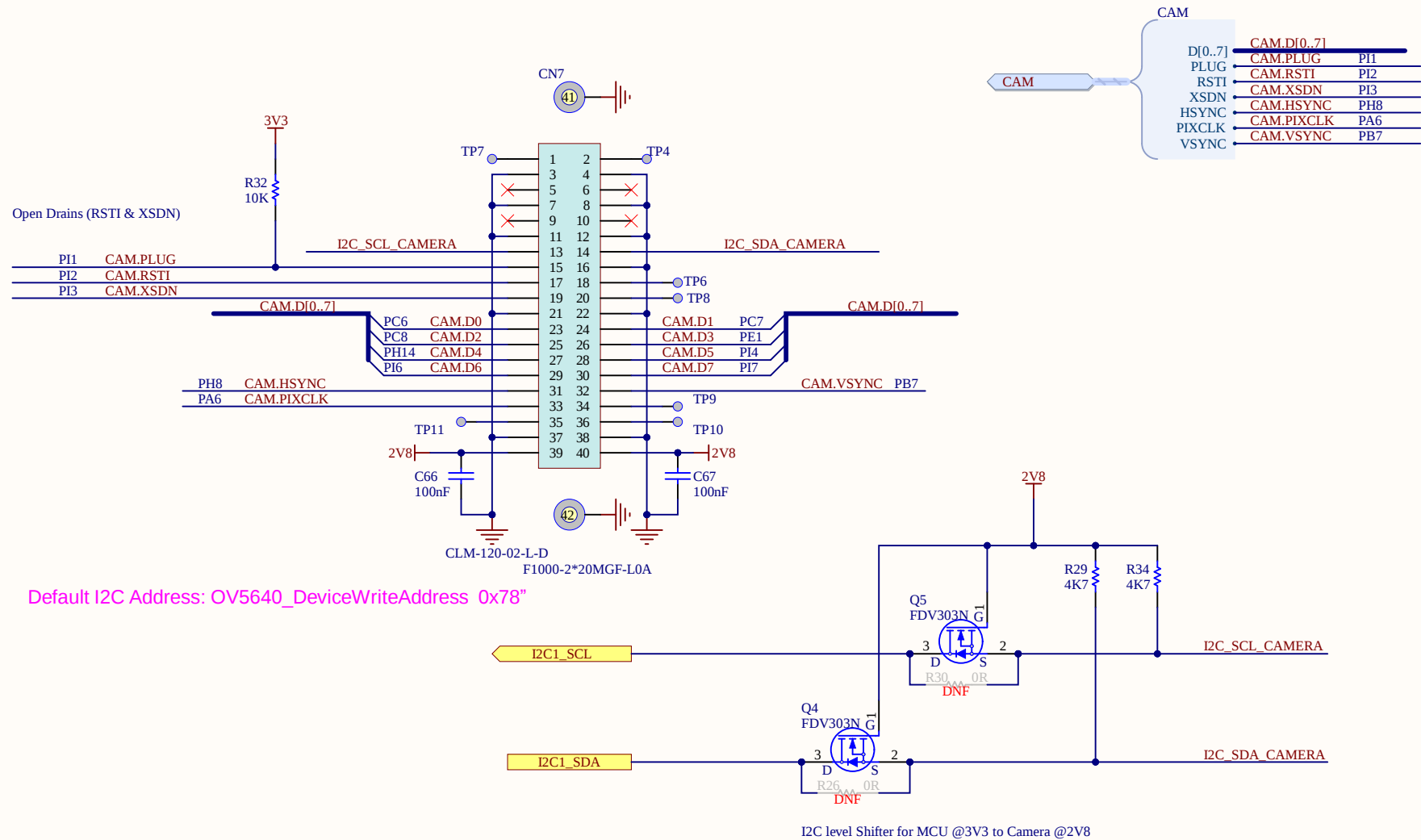
SINK and SOURCE

	SINK Mode	Source mode
jumper JP4 configuration see "Board Power " Page	position 5-6 5V_UCPD	position 1-2 5V_USB_STLK



CAMERA MODULE CONNECTOR

Operating range: 2.8<VDD<3.6V



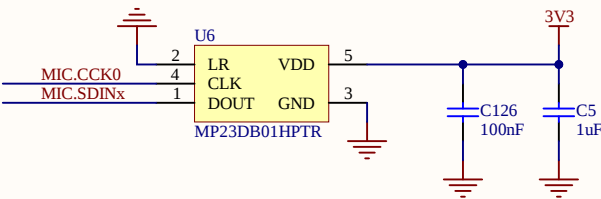
OCTOSPI bus should be routed in 50 ohm +/- 15%



AUDIO MEMS

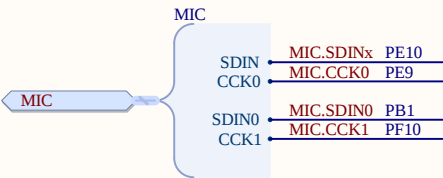
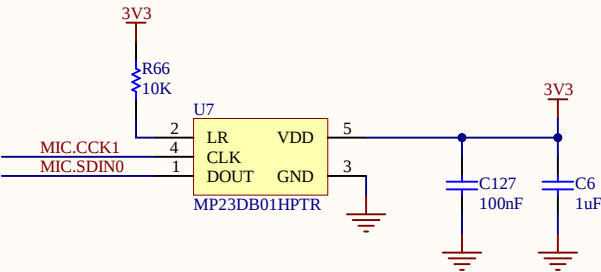
Operating range: $1.64 < VDD < 3.6V$

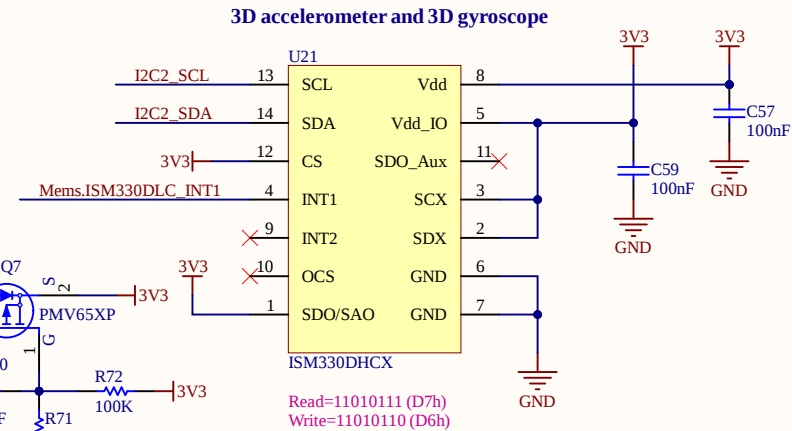
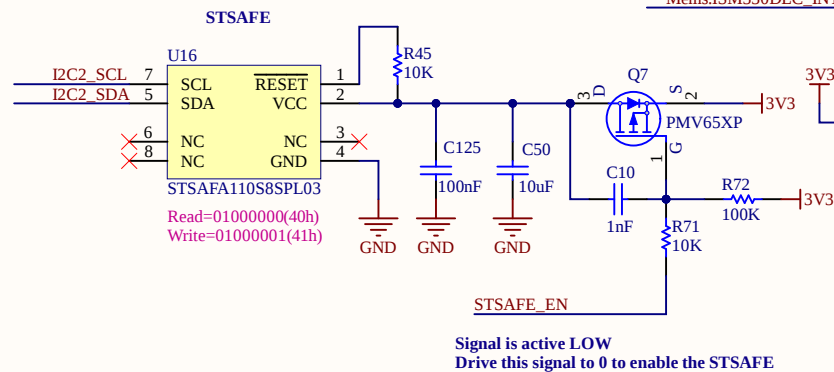
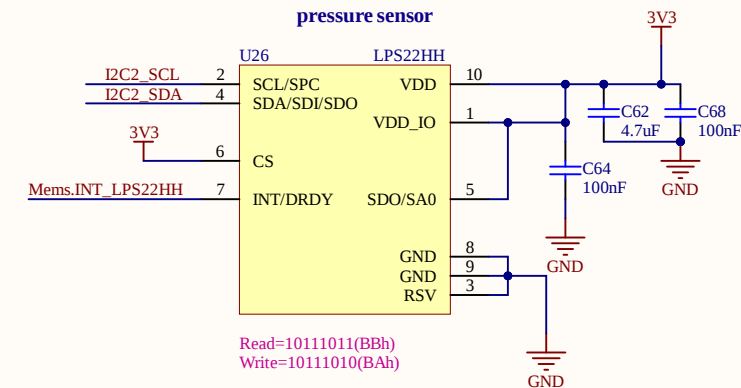
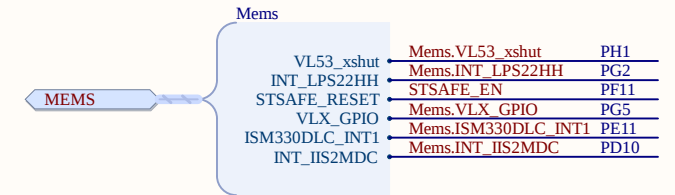
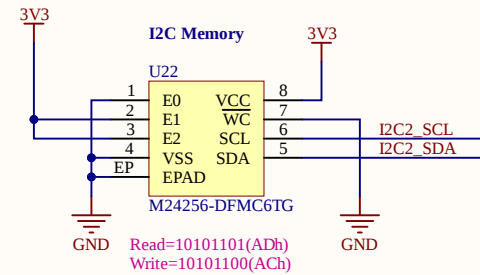
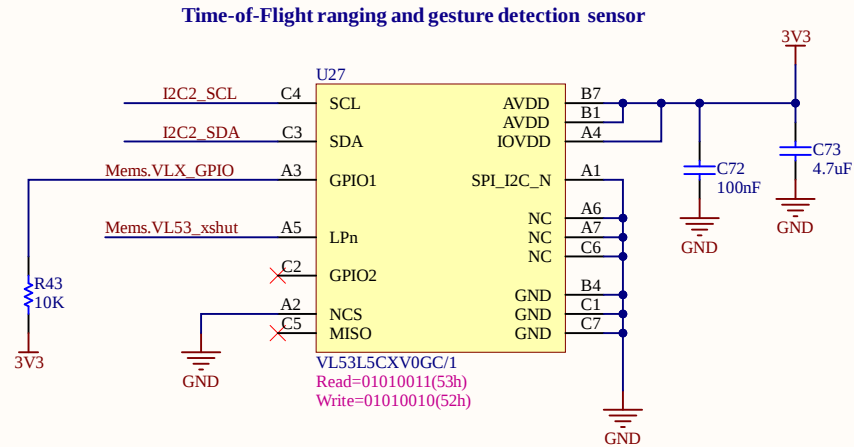
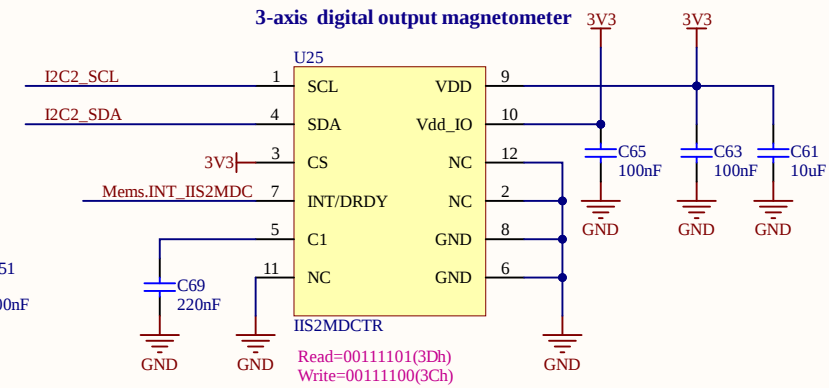
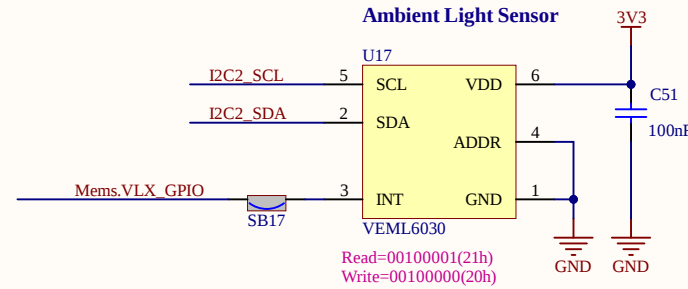
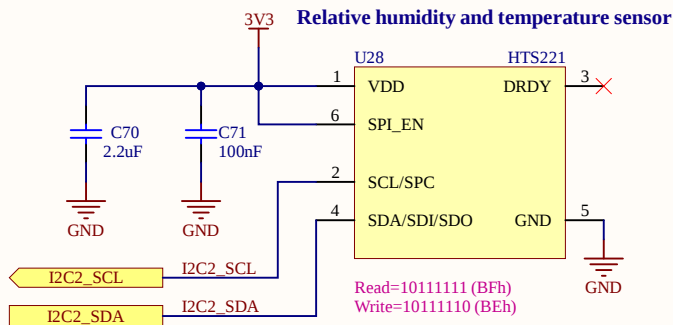
MDF&ADF INTERFACE

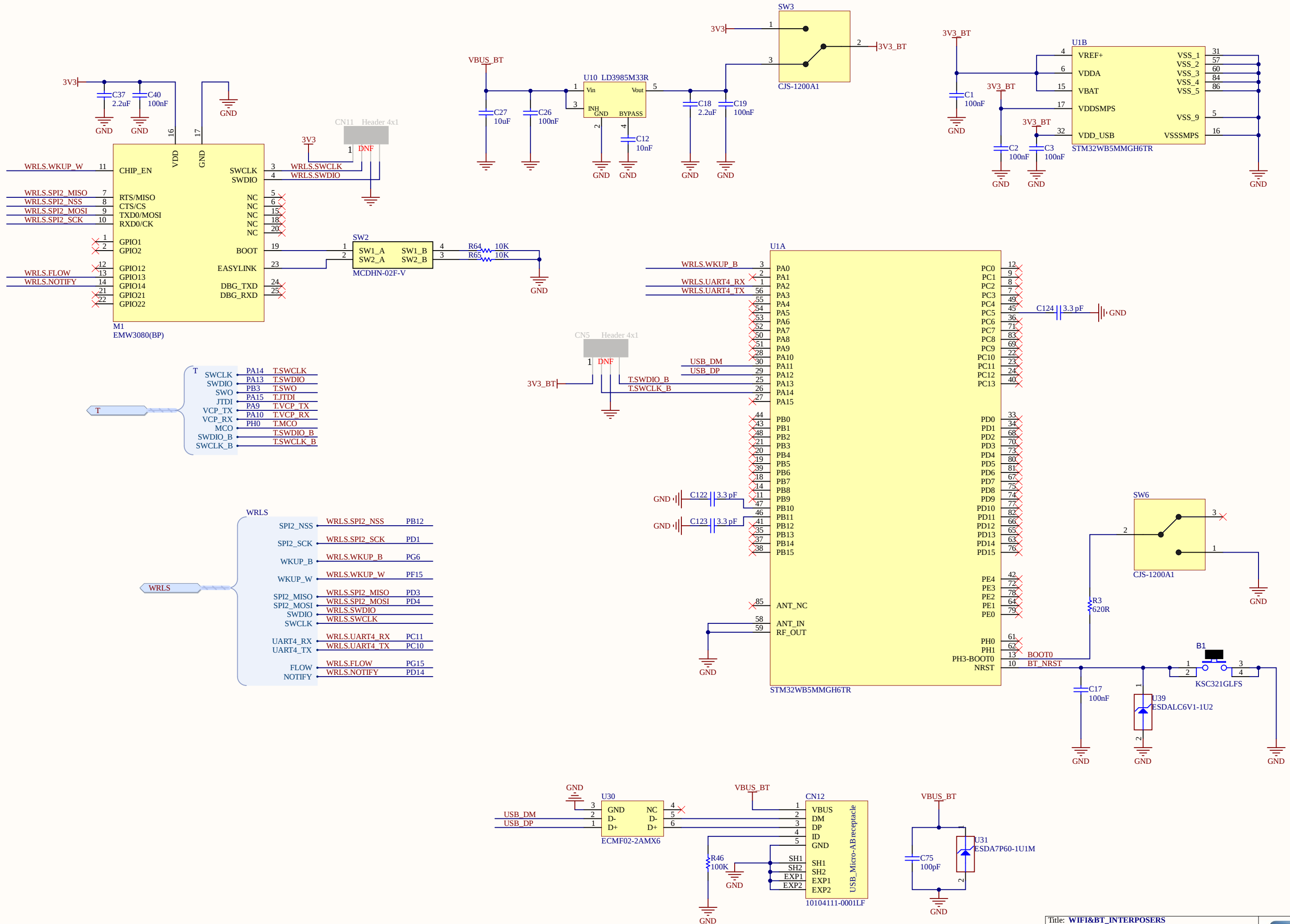


Operating range: $1.64 < VDD < 3.6V$

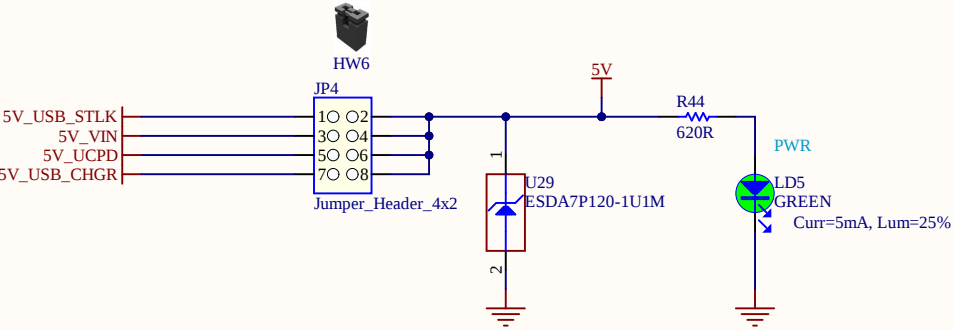
MDF INTERFACE





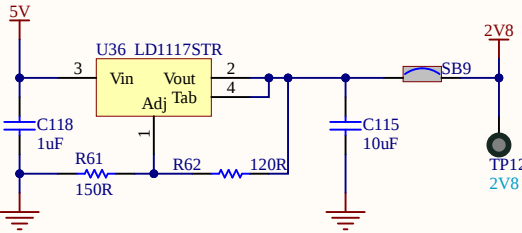


5V PWR SOURCE SELECTION



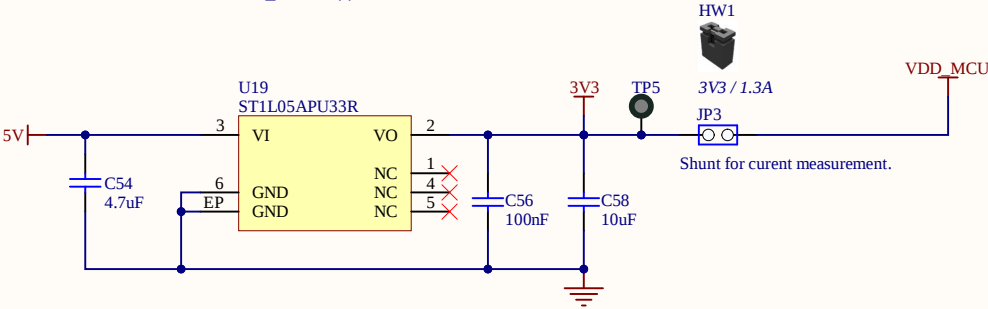
2V8_LDO: CAMERA

2V8 / 800mA

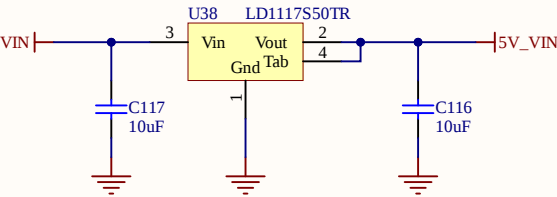


3V3 PWR SOURCE: 3V3 / 1300mA

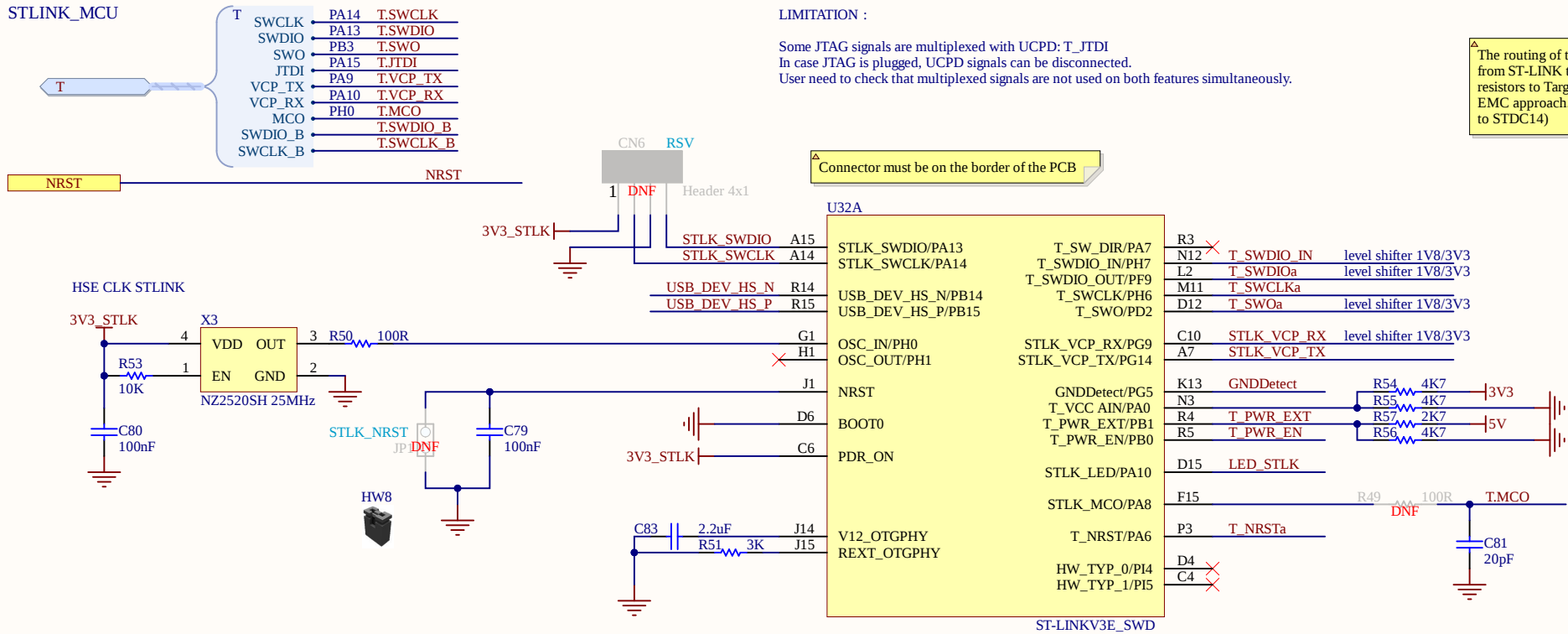
3V3 and VDD_MCU supplies



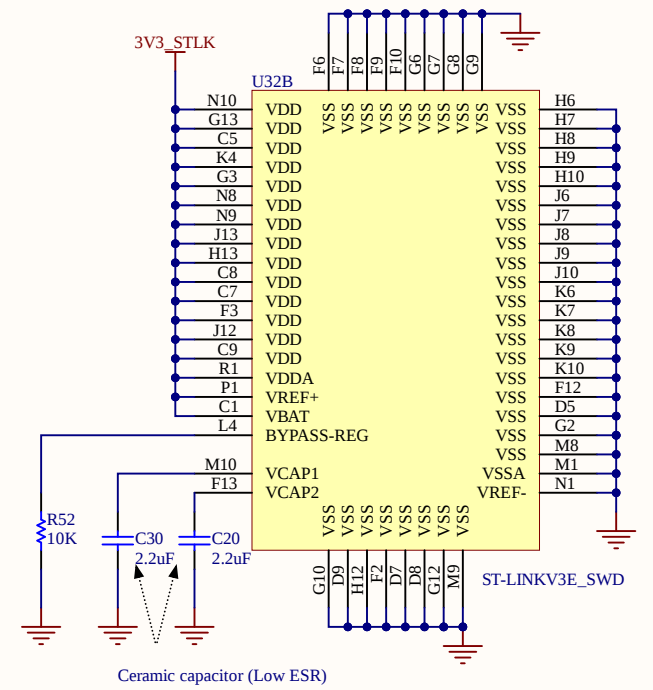
VIN FROM ARDUINO up to 12V: OUTPUT 5V / Up to 800mA (depend of VIN)



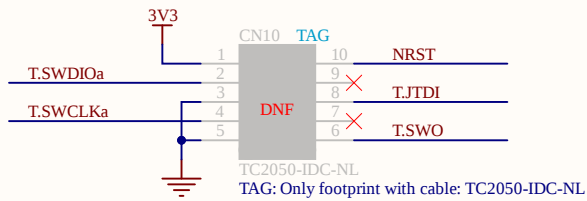
STLINK_MCU



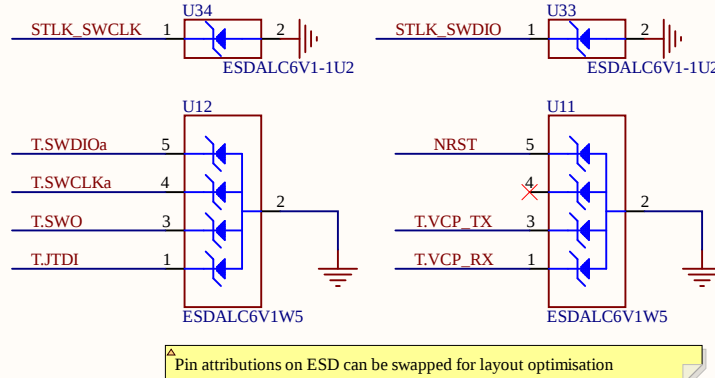
ST-LINK POWER



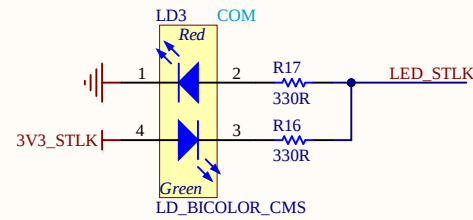
TAG CONNECTOR



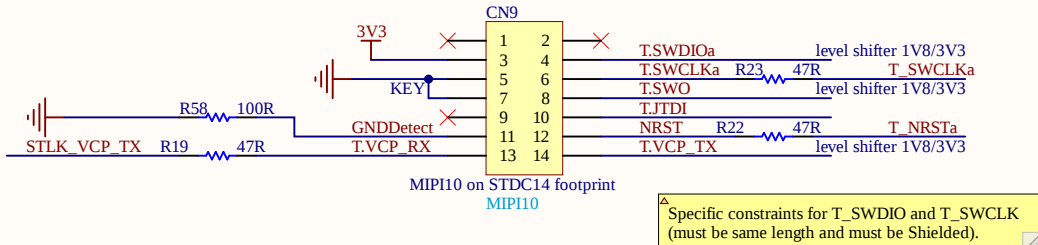
ESD PROTECTIONS



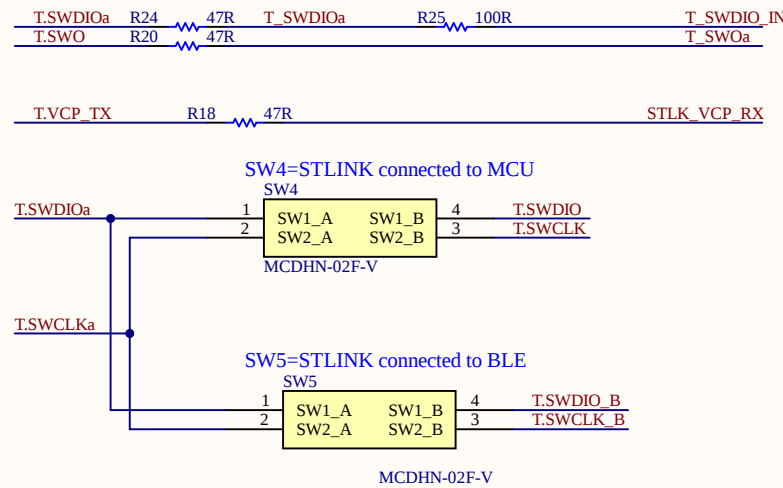
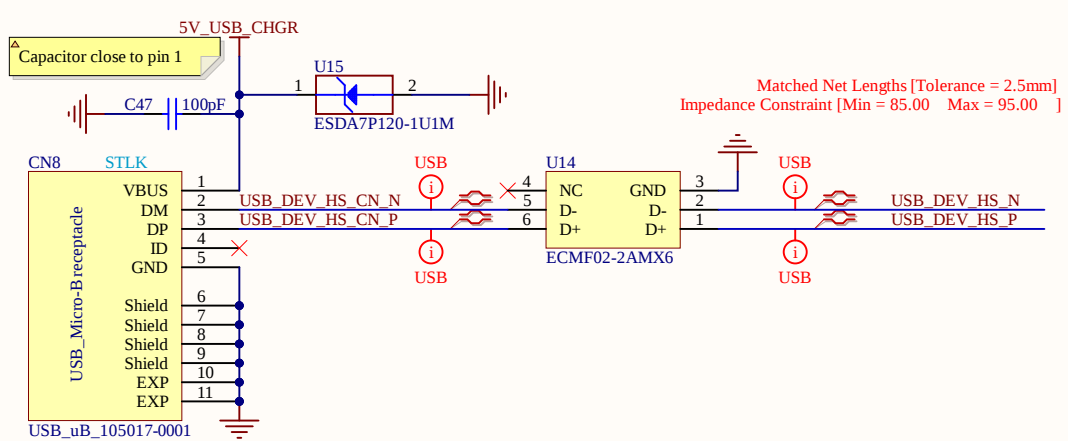
LED STLK



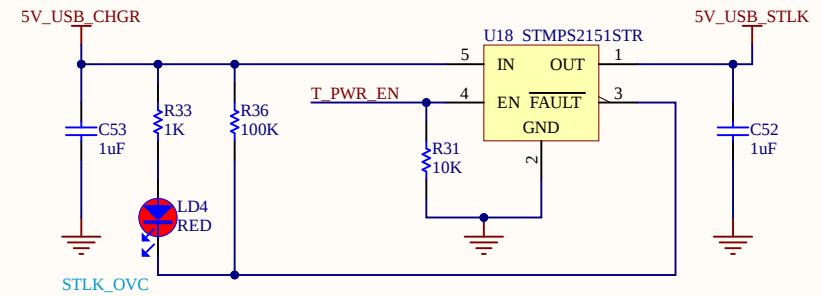
STDC14 RECEIVER



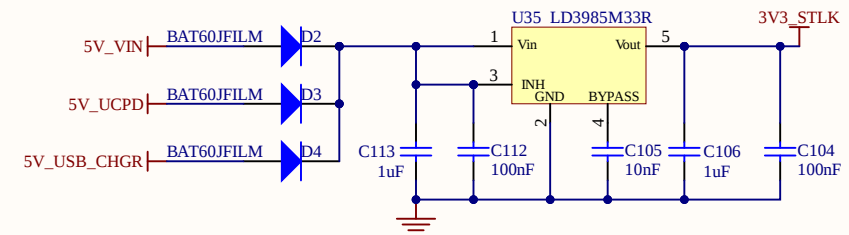
ST-LINK USB CONNECTOR



5V ST-LINK PROTECTION



ST-LINK POWER 3V3 / 150mA



PCB / STICKERS

HW3

DNF

HW4

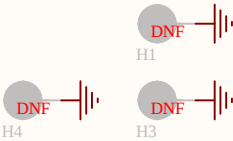
DNF

HW5

PCB

MB1551C

MECHANICAL PARTS



ADDED MODULES

The logo consists of the letters 'S' and 'T' in a bold, stylized, italicized font. The 'S' is thick and blocky, while the 'T' is also thick and blocky, with a vertical stem. The entire logo is enclosed within a rounded rectangular border. A registered trademark symbol (®) is located to the right of the logo.

