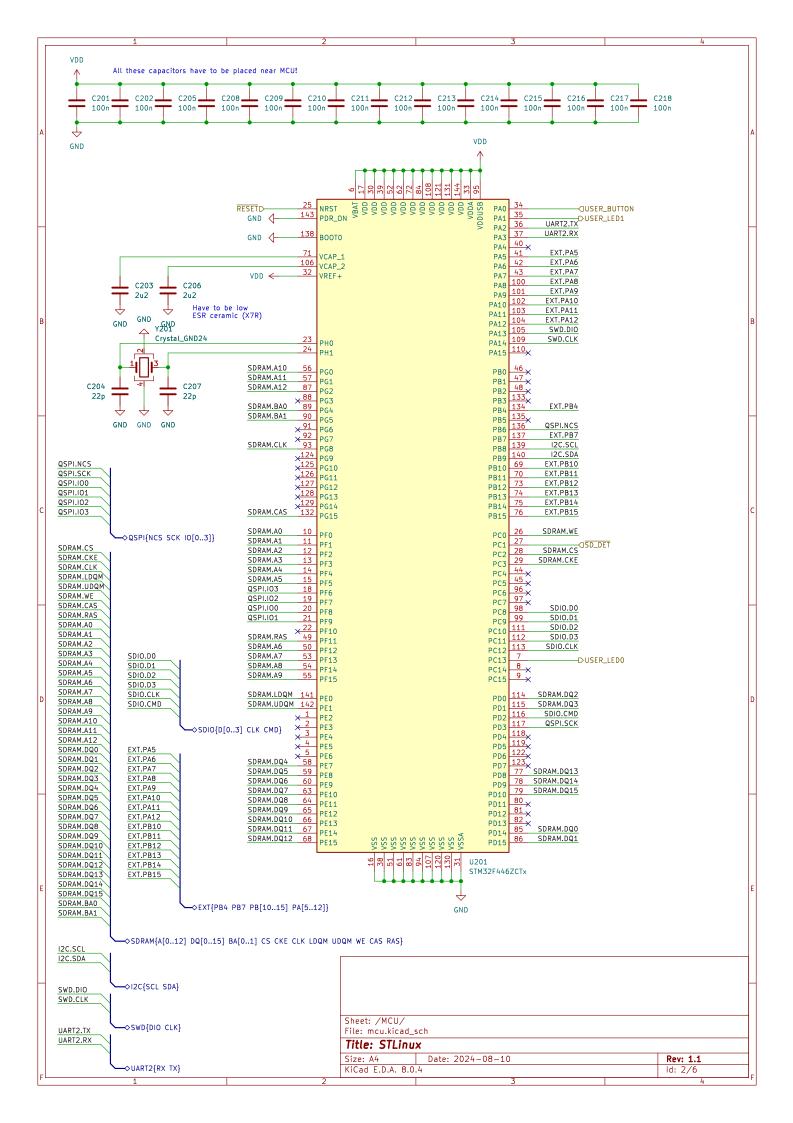
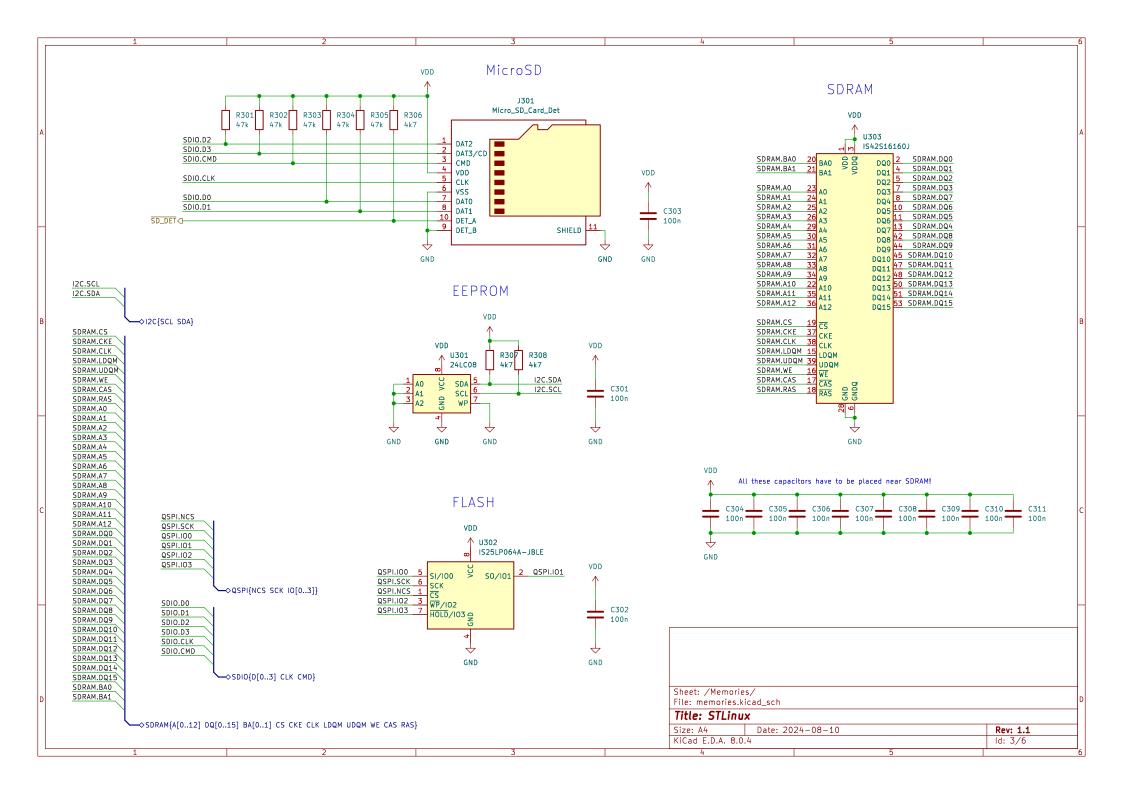
MCU Memories SDIO{D[0..3] CLK CMD}♦ ♦SDIO{D[0..3] CLK CMD} I2C{SCL SDA} ♦12C{SCL SDA} QSPI{NCS SCK IO[0..3]} ♦QSPI{NCS SCK 10[0..3]} SDRAM{A[0..12] DQ[0..15] BA[0..1] CS CKE CLK LDQM UDQM WE CAS RAS} SDRAM{A[0..12] DQ[0..15] BA[0..1] CS CKE CLK LDQM UDQM WE CAS RAS} SD_DET< OSD_DET File: memories.kicad_sch Low level 10 EXT{PB4 PB7 PB[10..15] PA[5..12]} SWD{DIO CLK} ◇EXT{PB4 PB7 PB[10..15] PA[5..12]} ♦SWD{DIO CLK} ₫<u>RESET</u> RESET USER_BUTTON< QUSER_BUTTON USER_LEDOD >USER_LED0 USER_LED1D DUSER_LED1 File: low_level_io.kicad_sch UART UART2{RX TX}♦ ♦UART2{RX TX} File: uart.kicad_sch File: mcu.kicad_sch Power Sheet: / File: stlinux.kicad_sch Title: STLinux File: power.kicad_sch Size: A4 Date: 2024-08-10 Rev: 1.1 KiCad E.D.A. 8.0.4 ld: 1/6

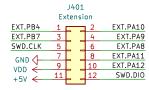


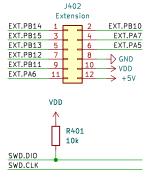


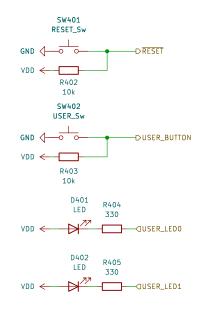
Extension AF capabilities

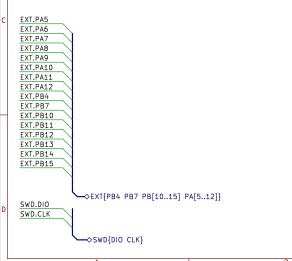
Extensions capability is provided by J401 and J402. These can be used to connect various serial based devices. Capabilities with pin names are written down in following table. Part of J401 is also SWD debugging interface. For more information about alternative functions please refer to Cube project attached to the project.

Pin	CAN	I2C	I2S	SPI	USART
PA5				SPI1 SCK	
PA6			I2S2_MCK	SPI1_MISO	i i
PA7	i		_	SPI1_MOSI	i i
PA8		I2C3_SCL		_	USART1_CK
PA9		I2C3_SDA	I2S2_CK		USART1_TX
PA10					USART1_RX
PA11	CAN1_RX				USART1_CTS
PA12	CAN1_TX				USART1_RTS
PB4			I2S2_WS		
PB7					
PB10		I2C2_SCL	I2S2_CK		USART3_TX
PB11		I2C2_SDA			USART3_RX
PB12	CAN2_RX	I2C2_SMBA	I2S2_WS	SPI2_NSS	USART3_CK
PB13	CAN2_TX		I2S2_CK	SPI2_SCK	USART3_CTS
PB14				SPI2_MISO	USART3_RTS
PB15			I2S2_SD	SPI2_MOSI	





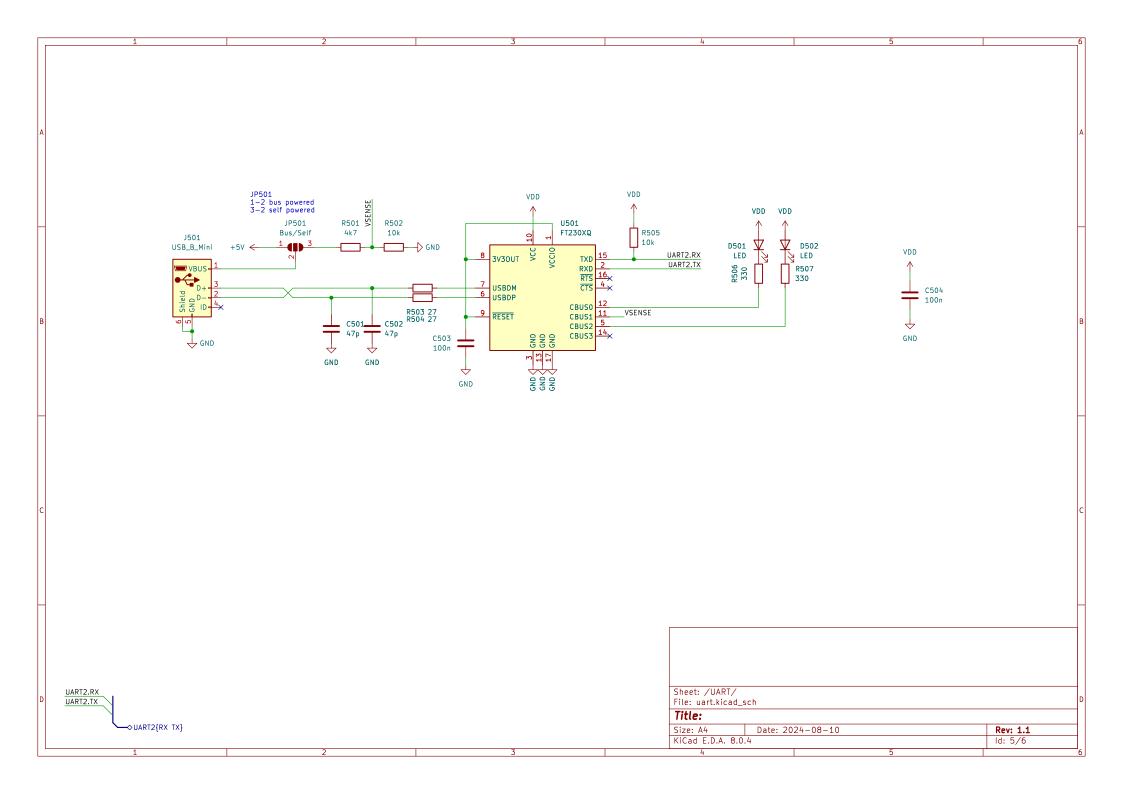




Sheet: /Low level 10/
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Size: A4	Date: 2024-08-10	Rev: 1.1		
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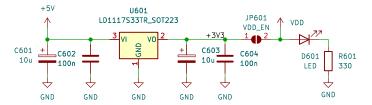
Power config

Board can be powered from two sources.

- USB connector
 Pinheaders

USB connector is by default used for UART1 using FTDI converter. Using solder bridge it is possible to switch between self–powered and bus–powered configuration. (Also change this in FTDI internal EEPROM!)

When FTDI is set to self-powered one have to provide power using headers. This power can be directly 3.3V and then jumper JP601 have to be open, or you can provide 5V and use voltage regulator to deliver 3.3V. It regulator is in use JP601 have to be closed.



Sheet: /Power/ File: power.kicad_sch

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Size: A4 Date: 2024-08-10 Rev: 1.1 KiCad E.D.A. 8.0.4 ld: 6/6