

STM32H7B3I-DK

MB1332

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Legend

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

Text to be added to silkscreen.

Warning text.

A

Notes to generate the board layout.

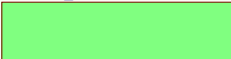
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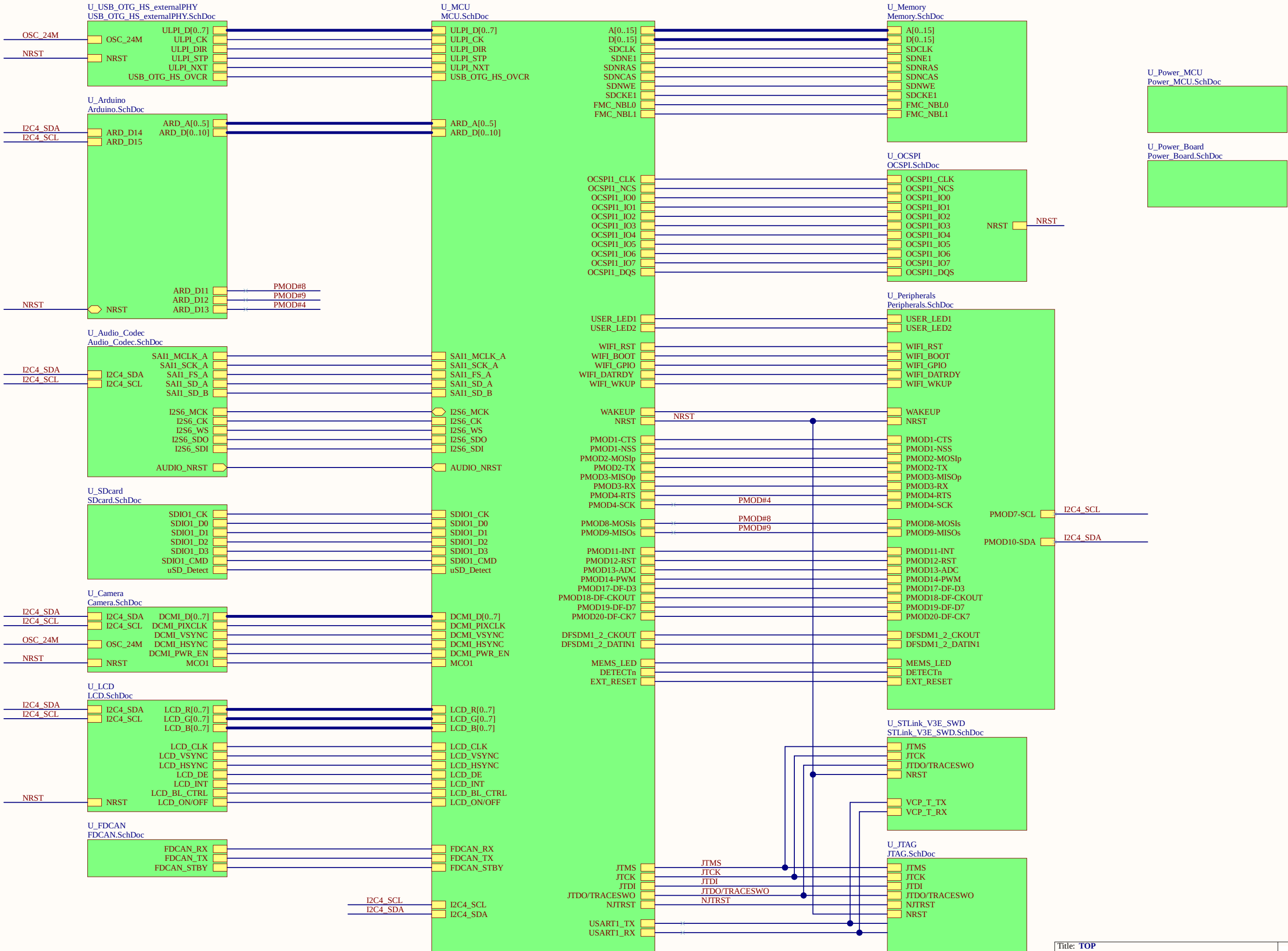
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U_Top
MB1332_TOP.SchDoc

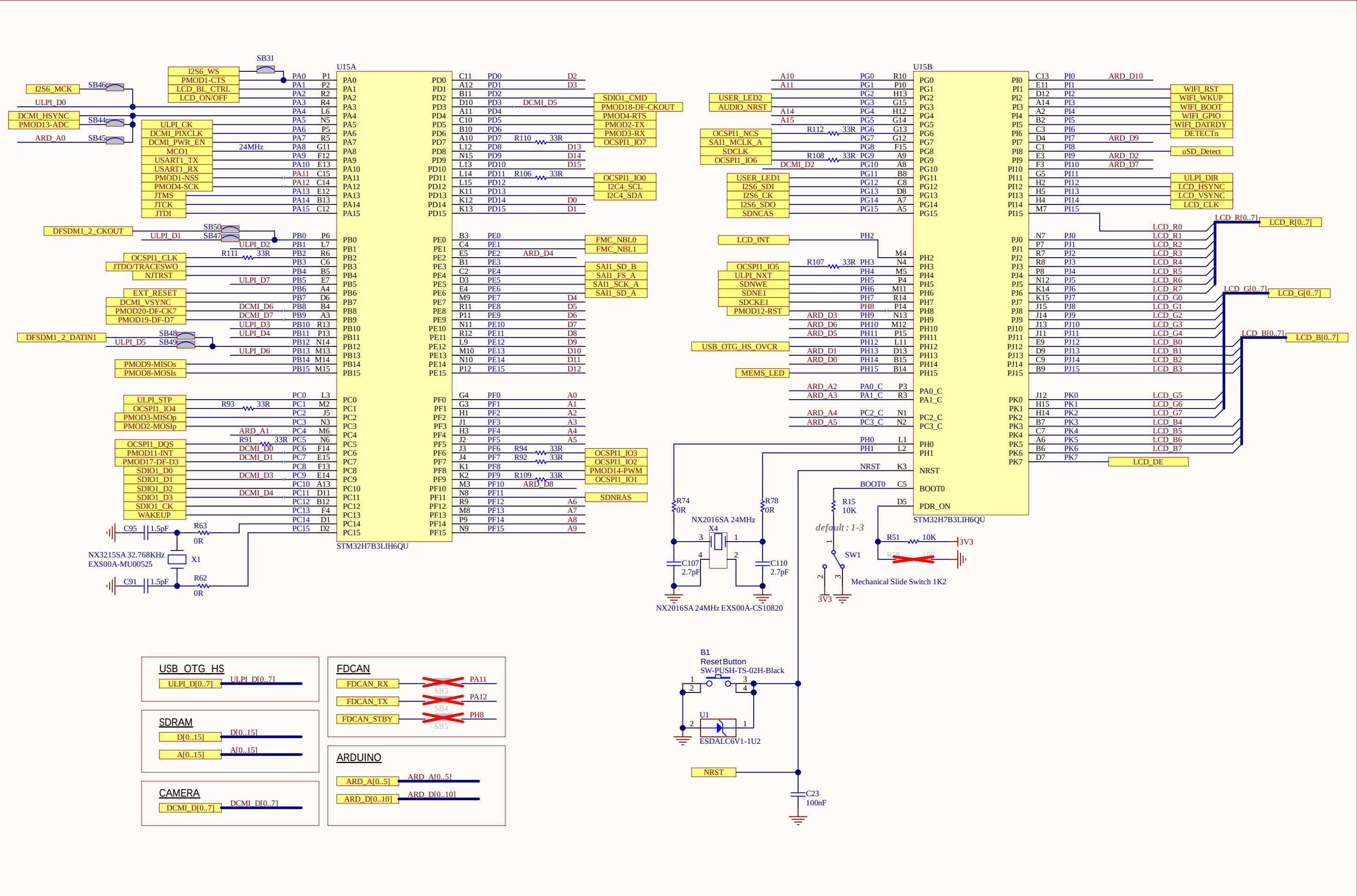


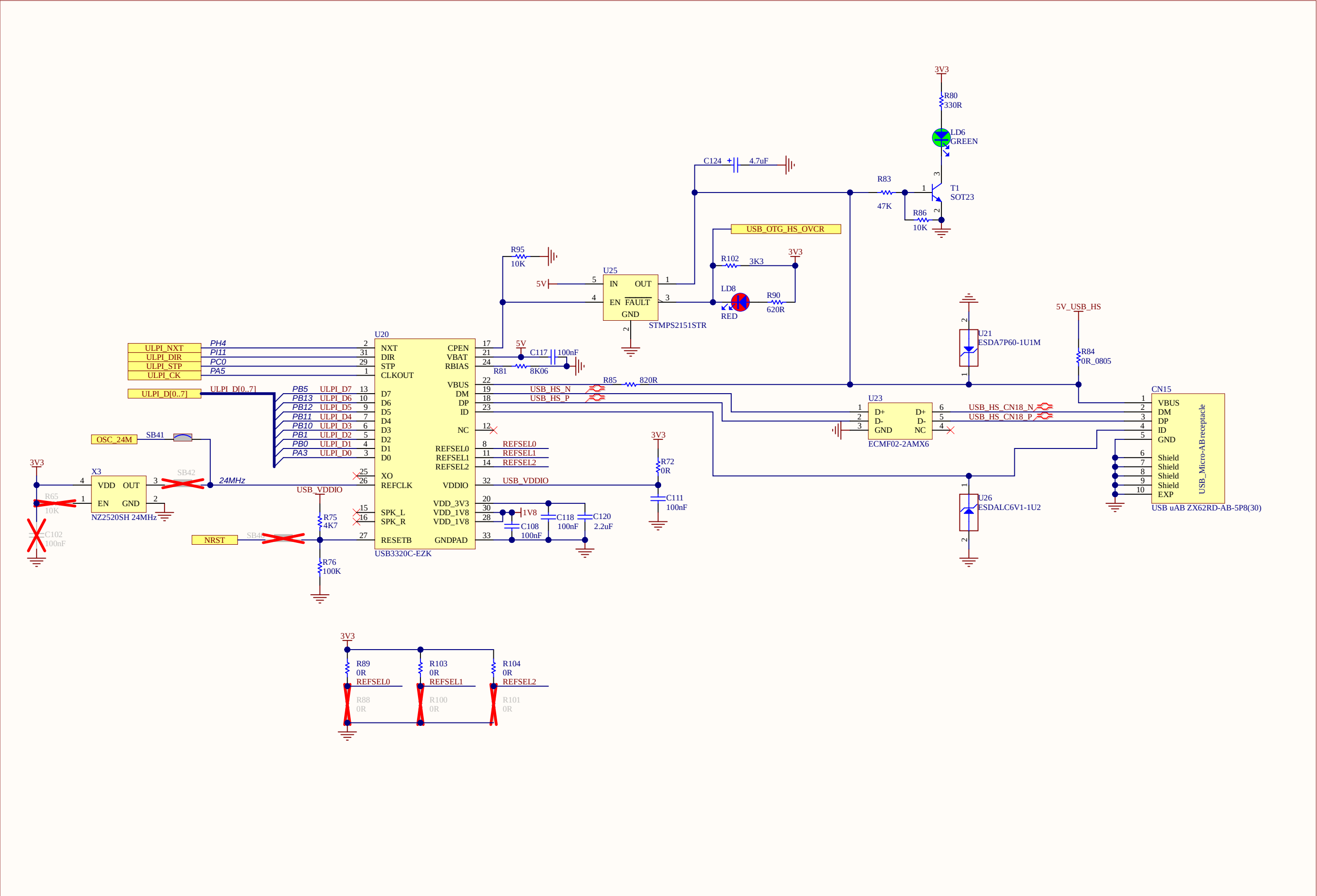
Title: Project overview		
Project: STM32H7B3I-DK		
Variant: H7B3I		
Revision: C-02		Reference: MB1332
Size: A4	Date: 13-NOV-2020	Sheet: 1 of 17

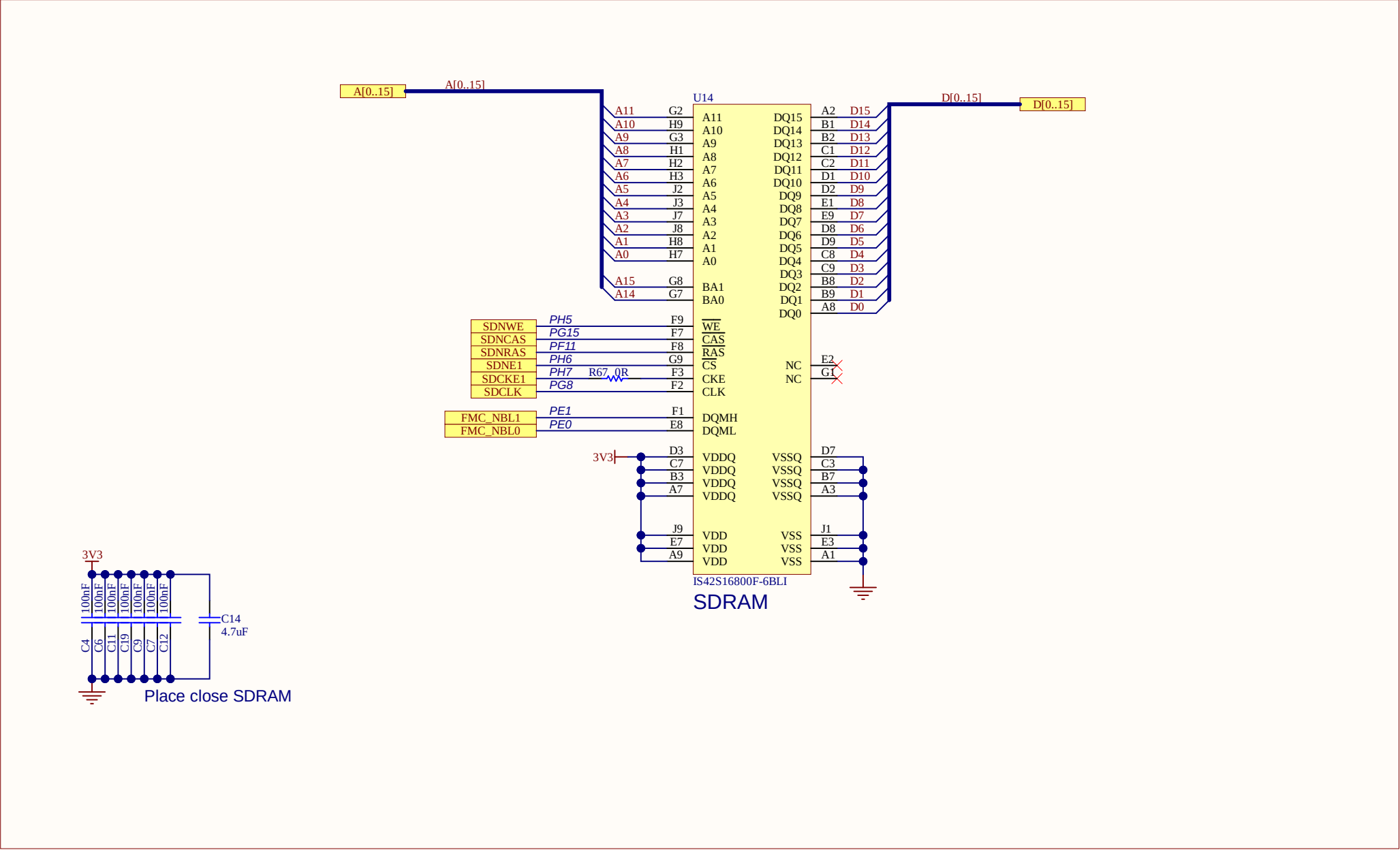


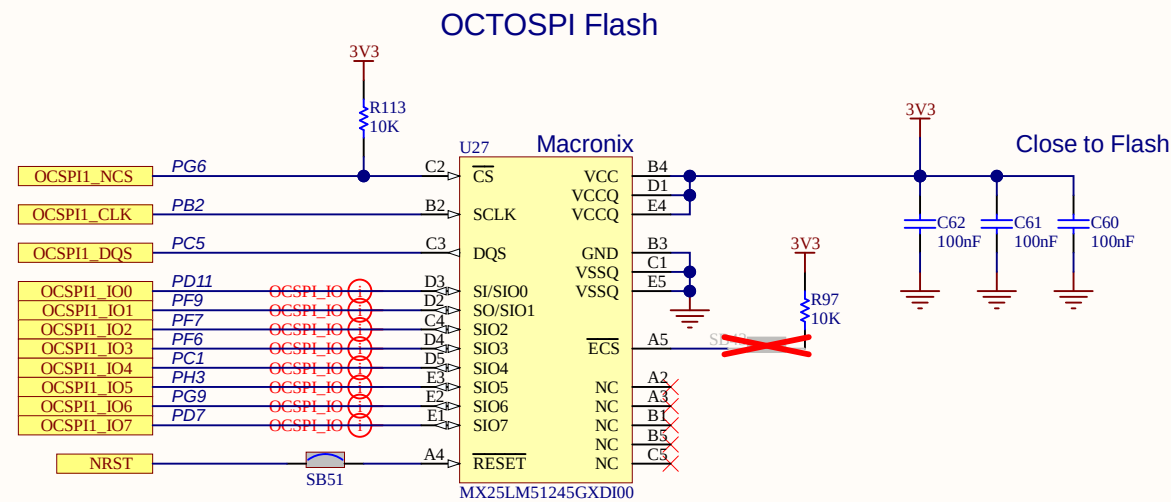


MCU STM32H7B3LIH6QU



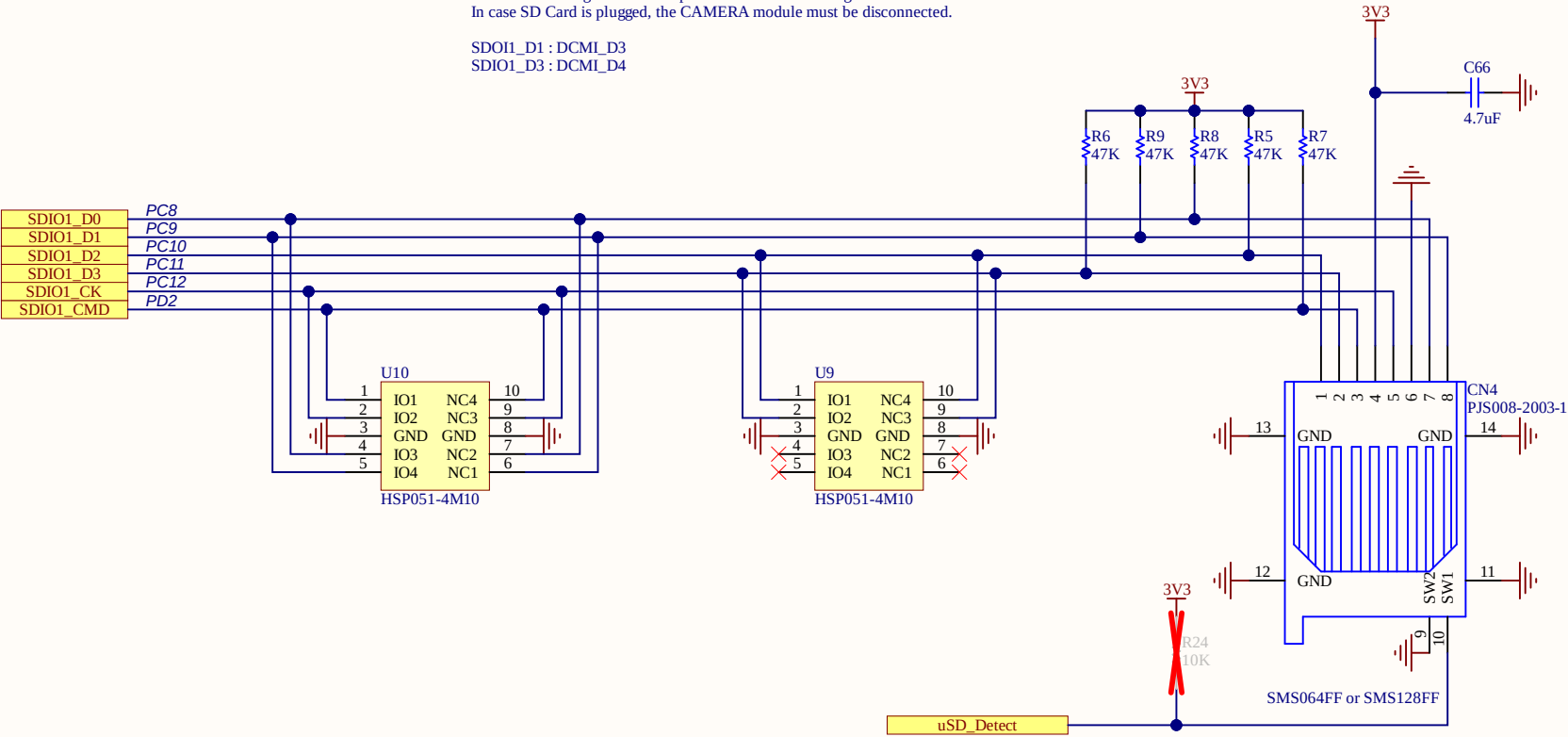






LIMITATION :
Some SD Card signals are multiplexed with CAMERA signals
In case SD Card is plugged, the CAMERA module must be disconnected.

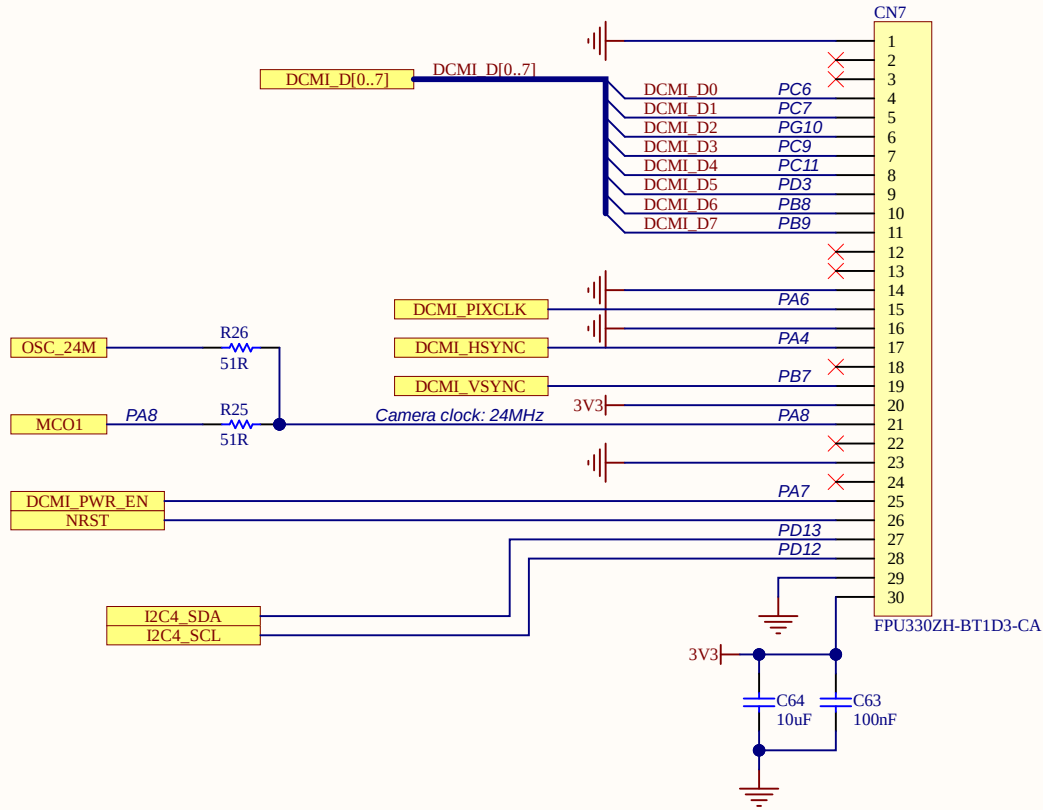
SDIO1_D1 : DCMI_D3
SDIO1_D3 : DCMI_D4



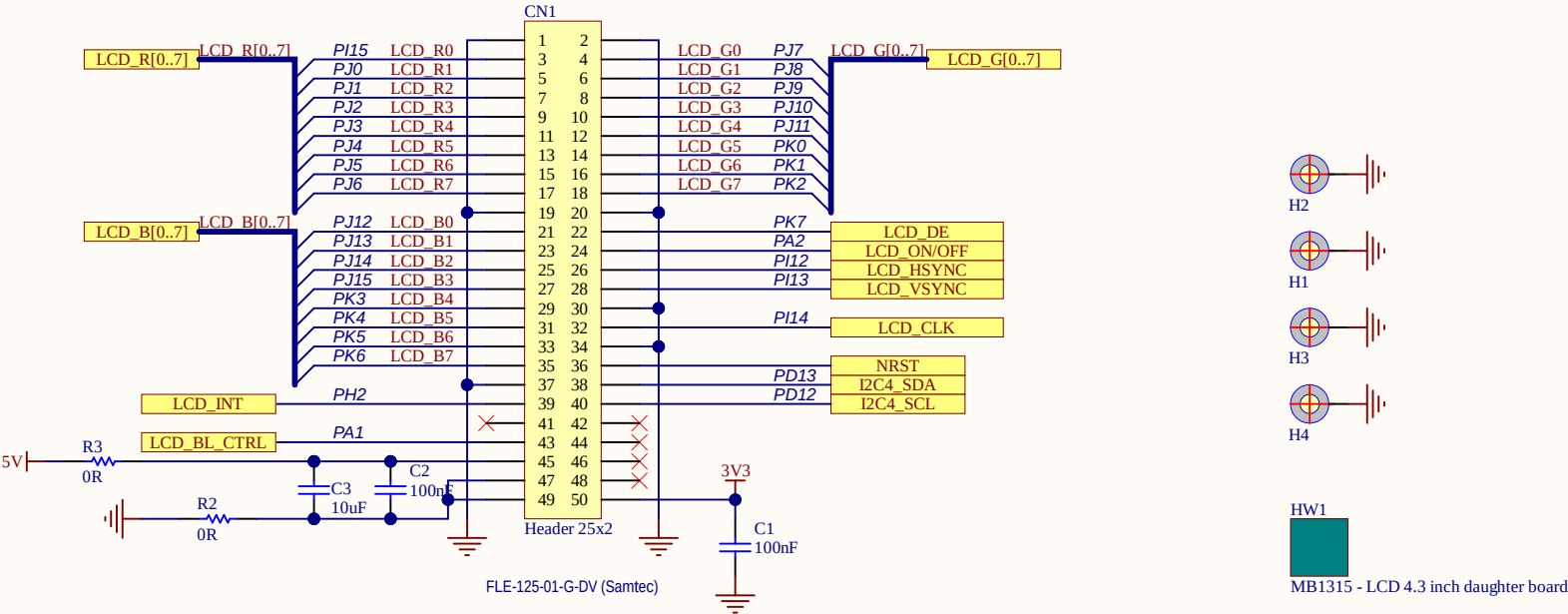
LIMITATION :
DCMI signals are multiplexed with several functions (SD Card, STMOD+ and Arduino)
In case CAMERA module is plugged, SD Card, STMOD+ and Arduino must be disconnected.
Videos are stored in USB

DCMI_D0 : PMOD#11-INT
DCMI_D1 : PMOD#17-DF-D3
DCMI_D3: SDIO1_D1
DCMI_D4: SDIO1_D4
DCMI_D5: PMOD#18-DF-CKOUT
DCMI_D6: PMOD#20-DF-CK7
DCMI_D7 : PMOD#19-DF-D7
DCMI_HSYNC : PMOD#13-ADC and ARD_A0

Camera connector for STM32F4DIS-CAM

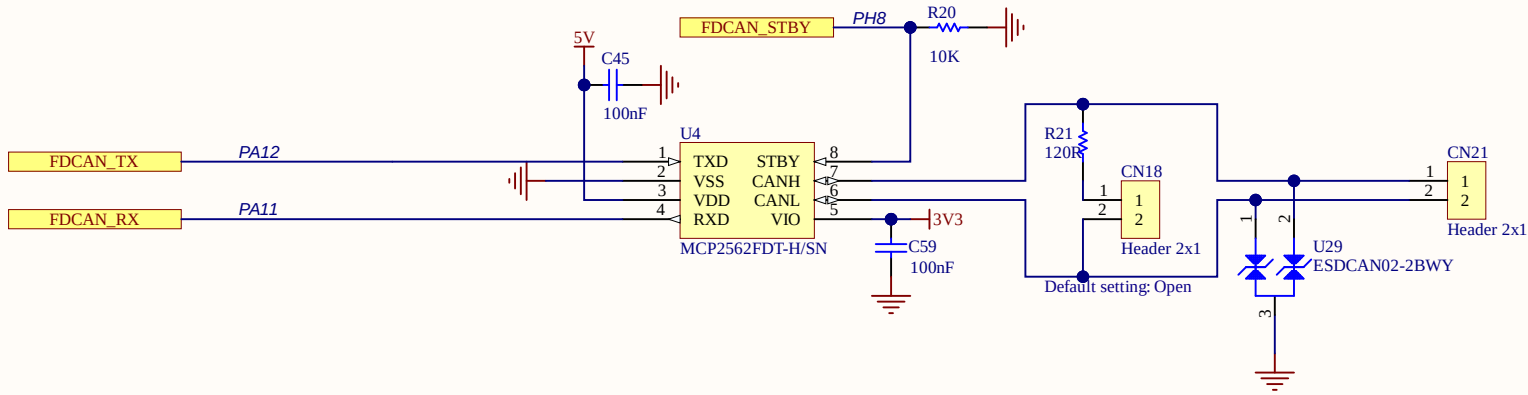


Compatible with MB1315 (4.3 inch LCD board)

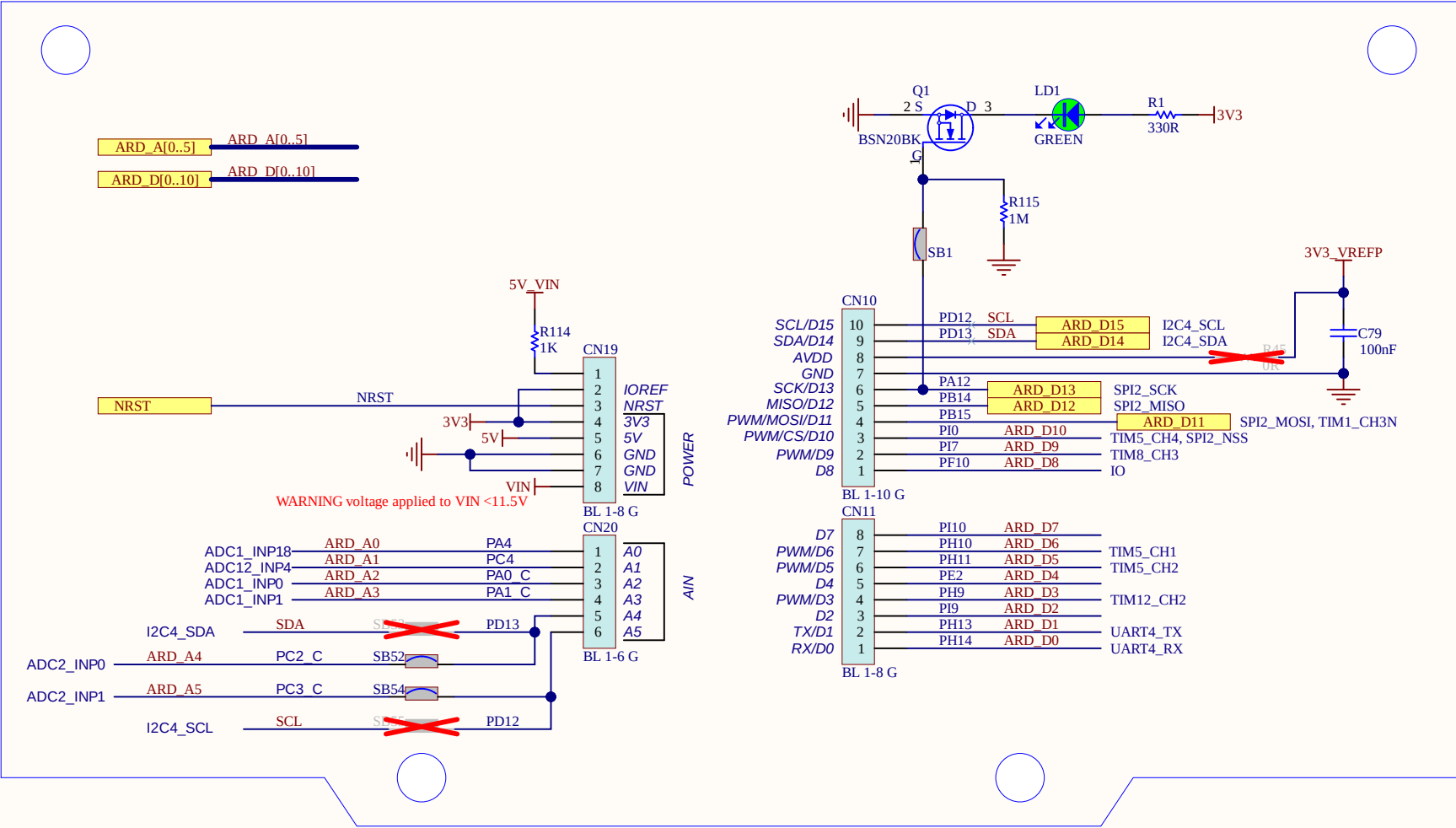


LIMITATION :
FD-CAN signals are multiplexed with STMOD+ function
In case FD-CAN module is connected, STMOD+ must be disconnected.

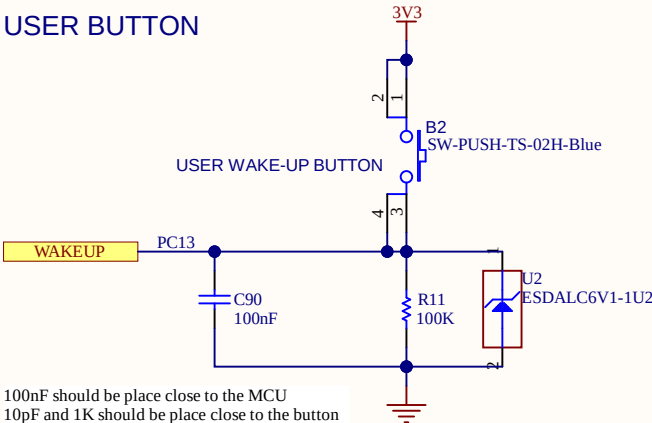
FDCAN_RX : PMOD1-NSS
FDCAN_TX : PMOD4-SCK
FDCAN_STBY : PMOD12-RST



LIMITATION :
ARDUINO signals are multiplexed with STMOD+ signals
In case ARDUINO SHIELD is plugged, STMOD+ and Camera must be disconnected.

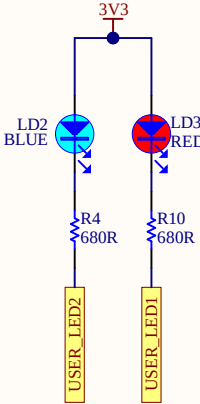


USER BUTTON



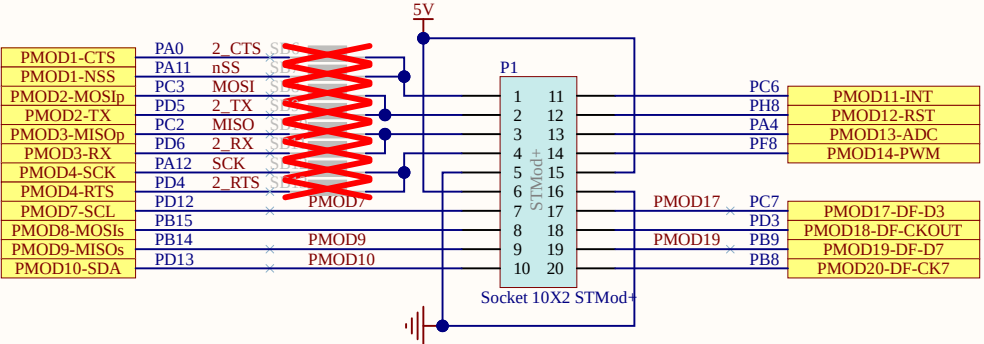
100nF should be place close to the MCU
10pF and 1K should be place close to the button

USER LED



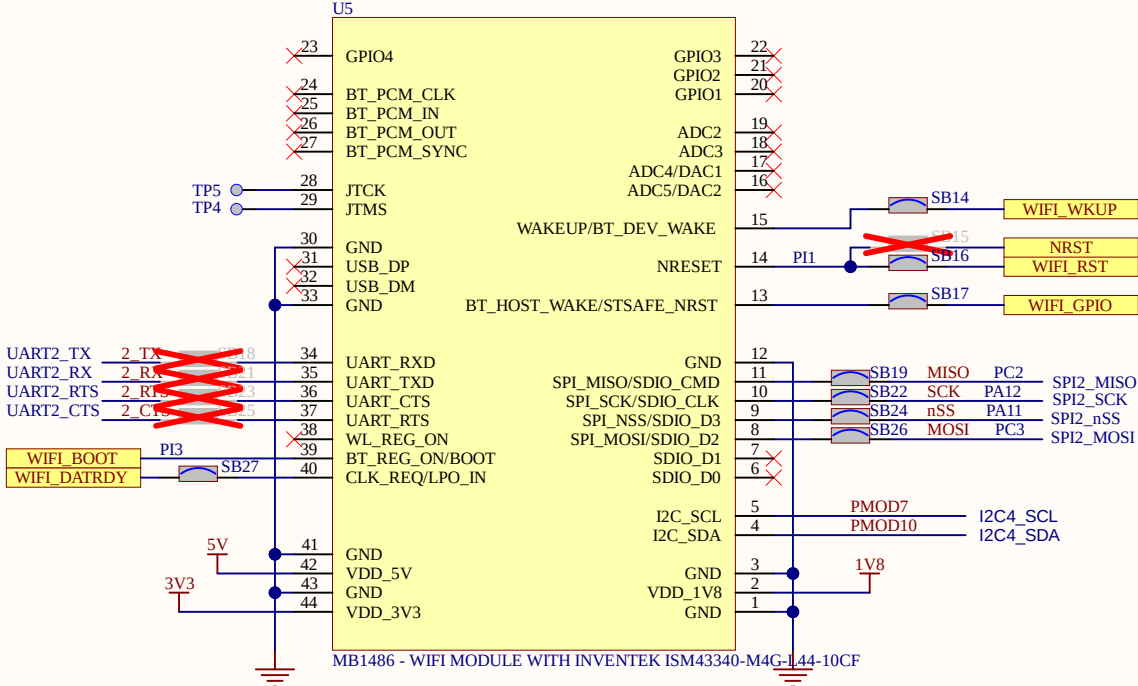
STMOD+

LIMITATION :
STMOD+ signals are multiplexed with AUDIO, CAMERA and Arduino signals
In case STMOD+ is used, Digital Microphones, Camera and Arduino must be disconnected.



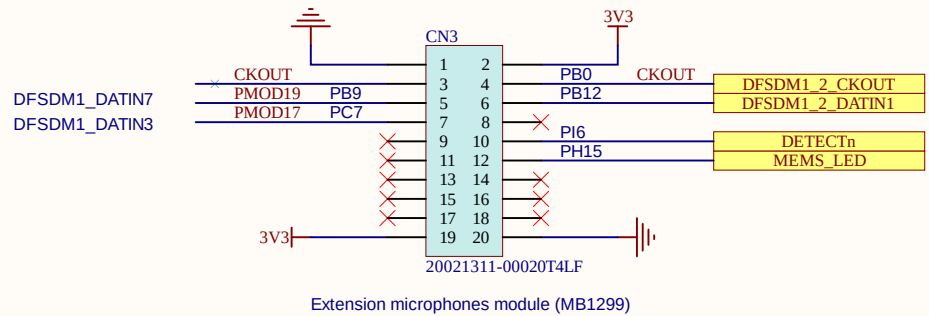
WIFI MODULE (ISM43340-M4G-L44-10CF)

LIMITATION :
WiFi signals are multiplexed with STMOD+
In case WiFi-BT is activated, STMOD+ must be disconnected.

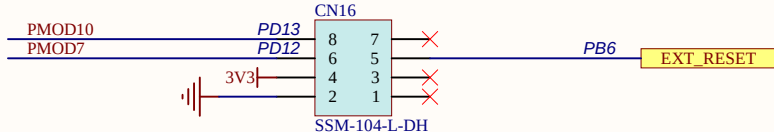


AUDIO DFSDM

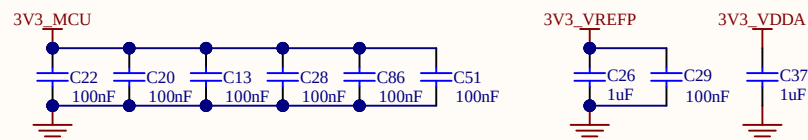
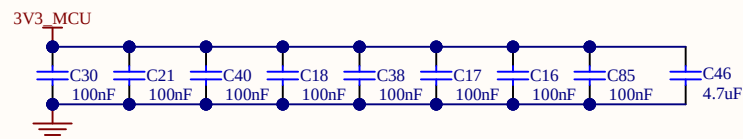
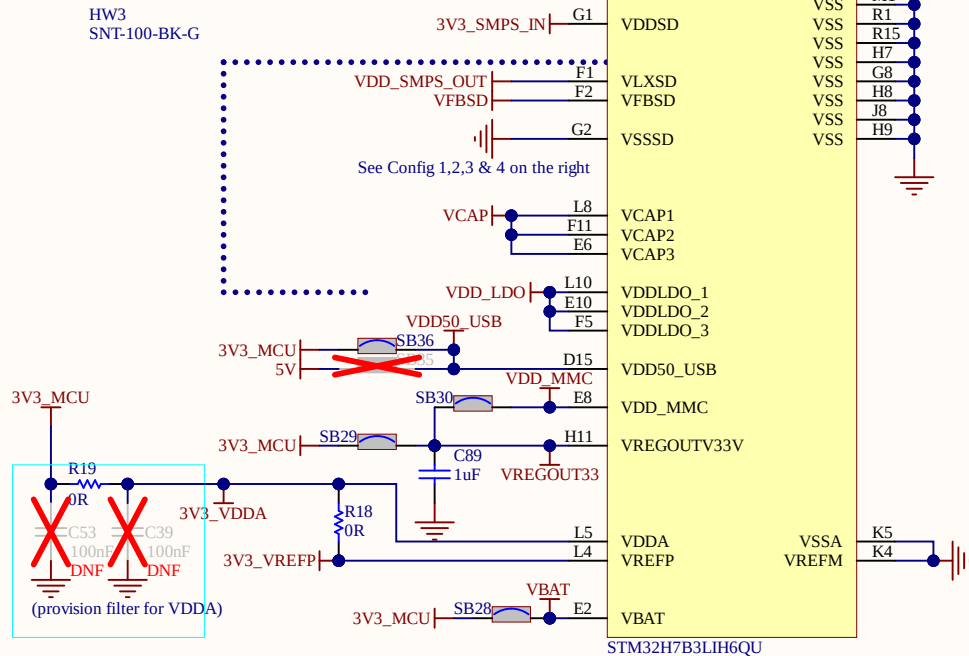
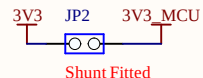
LIMITATION :
DFSDM signals are multiplexed with STMOD+ signals
In case microphones are activated, noting must be connected on STMOD+.



I2C Connector



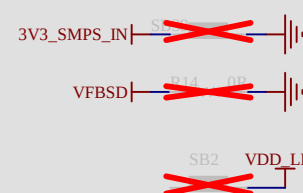
MCU power



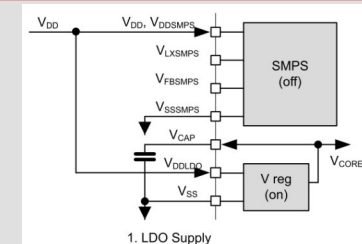
Internal SMPS Supply Config

For further details, please see [TINY_SHARK_PWR.pdf](#)

Supply Config 1 : LDO only (SMPS OFF, LDO ON)



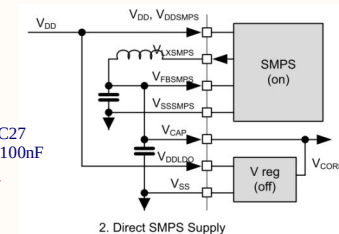
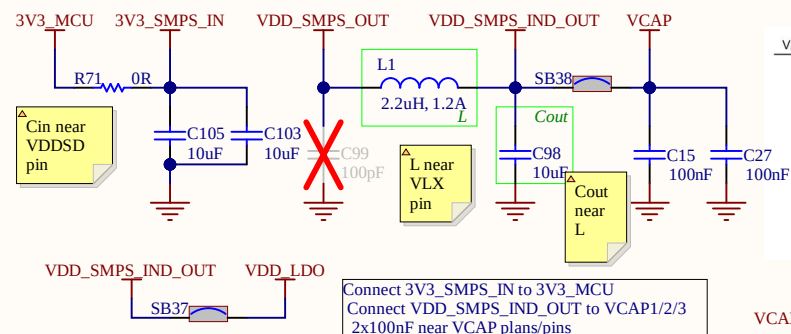
- Disconnect 3V3_SMPS_IN from 3V3_MCU
- Connect 3V3_SMPS_IN to GND
- Connect VDD_SMPS_IND_OUT to GND
- Connect VDD_LDO to 3V3_MCU
- 2 x 2.2uF near VCAP plans/pins



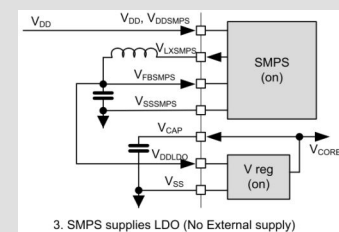
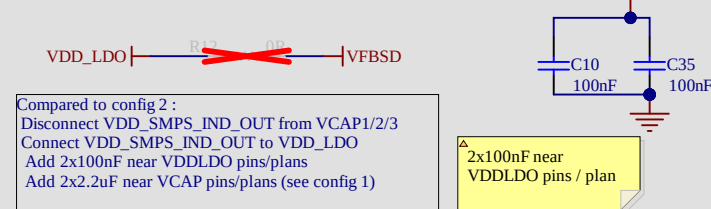
Supply Config 2 : SMPS only (SMPS ON, LDO OFF)

Supply Config

2x100nF near VCAP pins / plan



Supply Config 3 : SMPS & LDO cascaded (SMPS & LDO ON)

Title: **MCU_Power**Project: **STM32H7B3I-DK**Variant: **H7B3I**

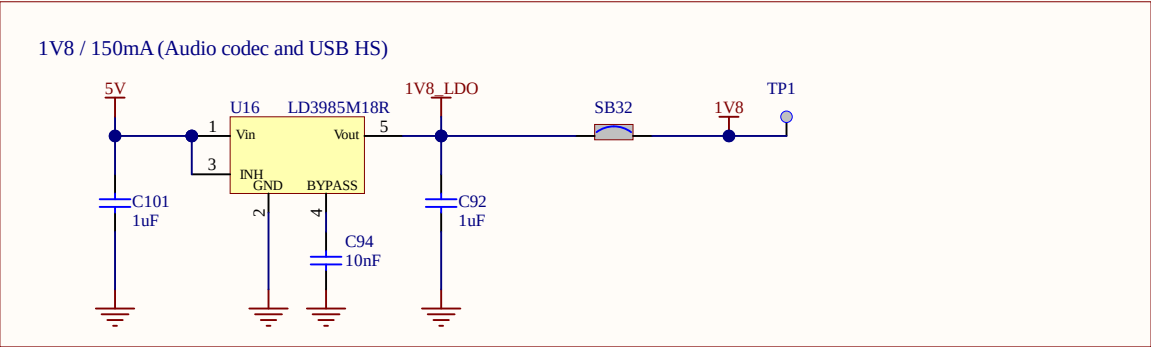
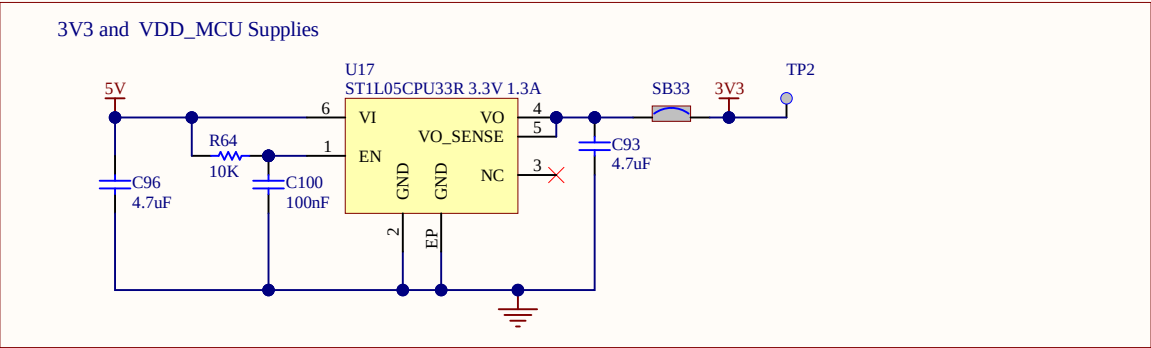
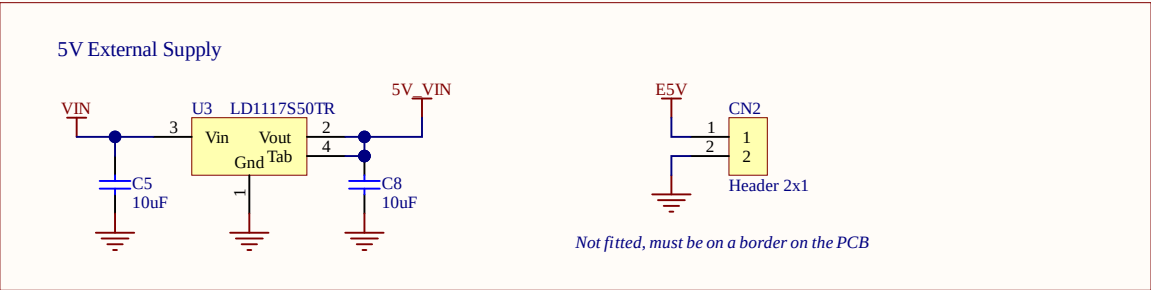
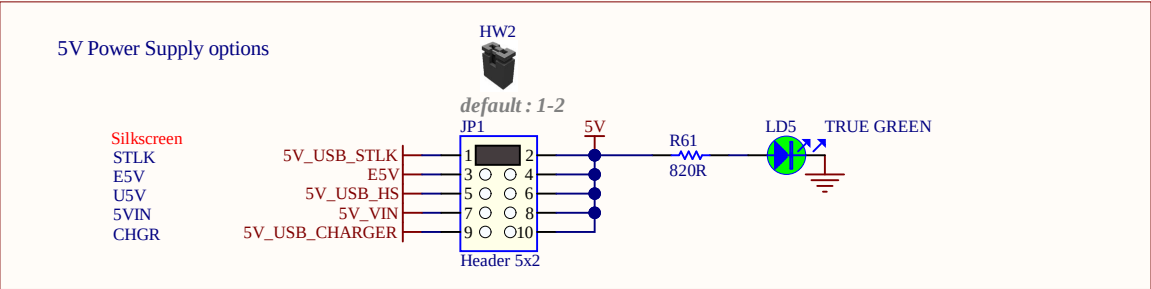
Revision: C-02

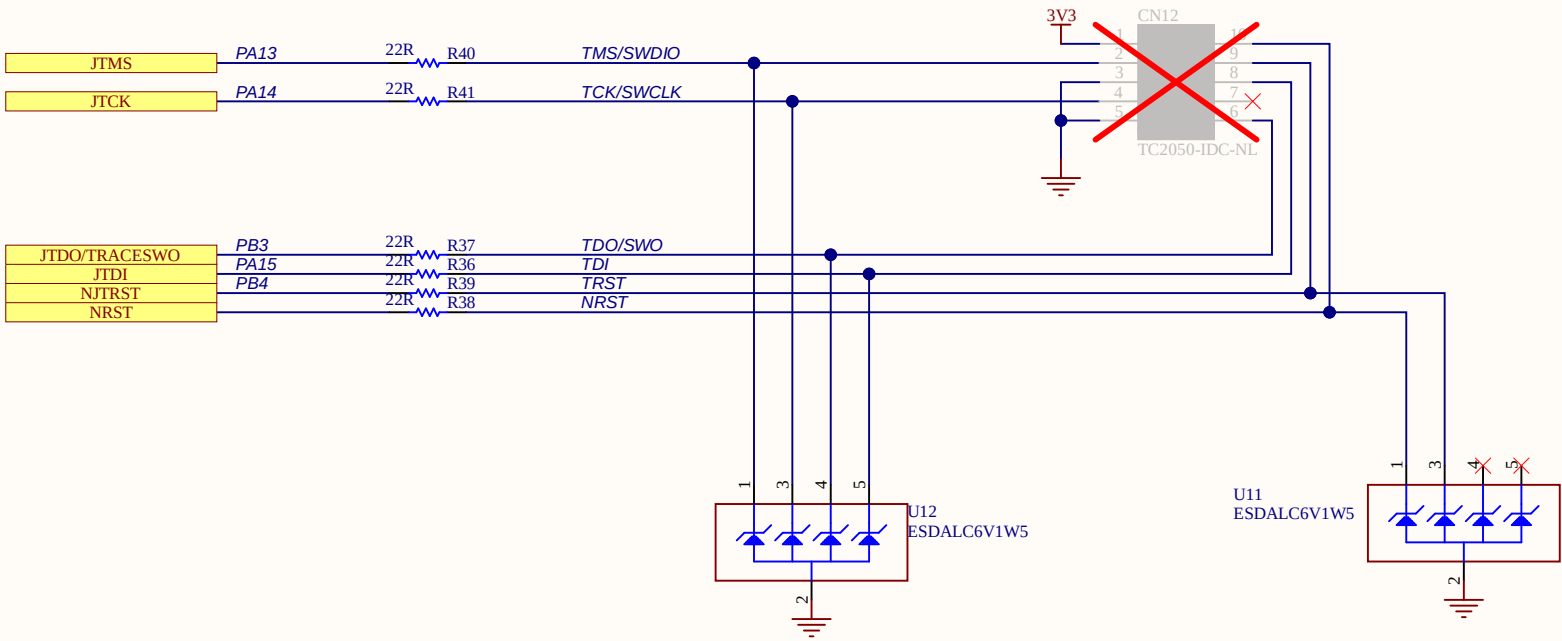
C-02

Reference: [MB1332](#)

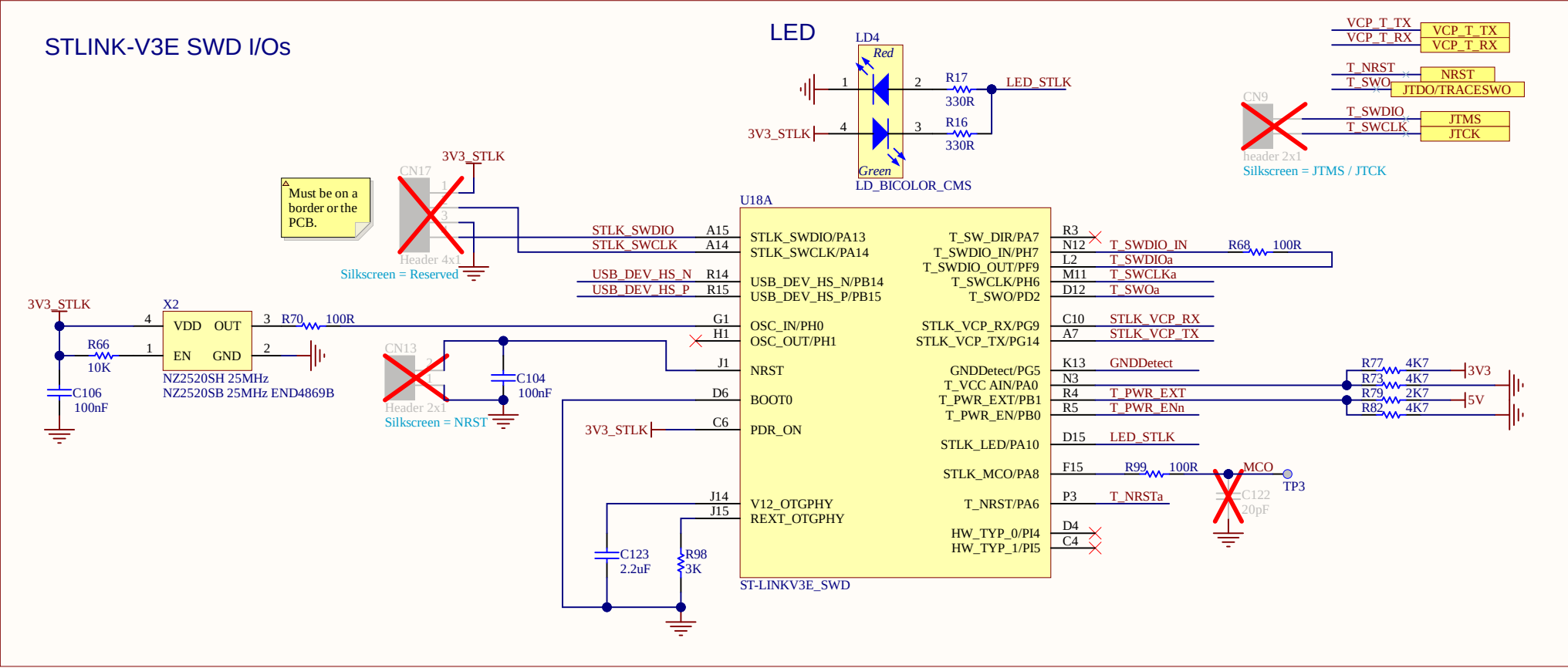
life.augmented

Board power

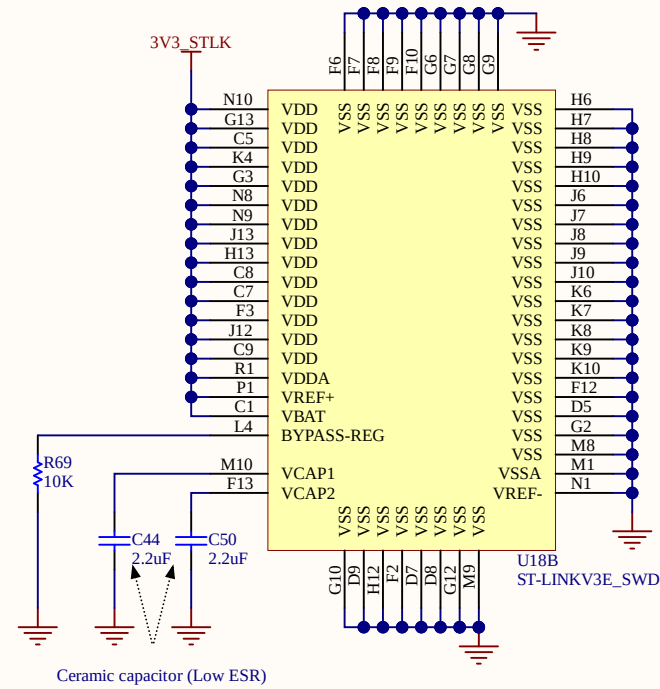




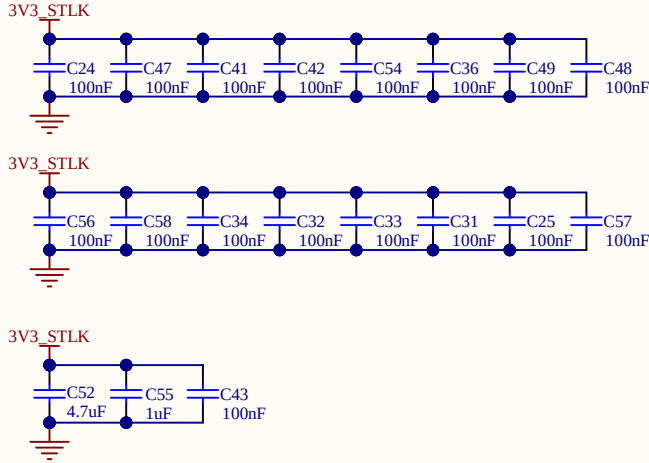
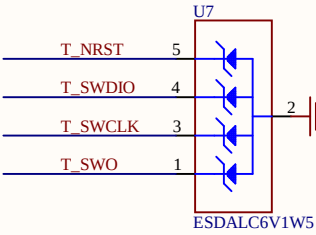
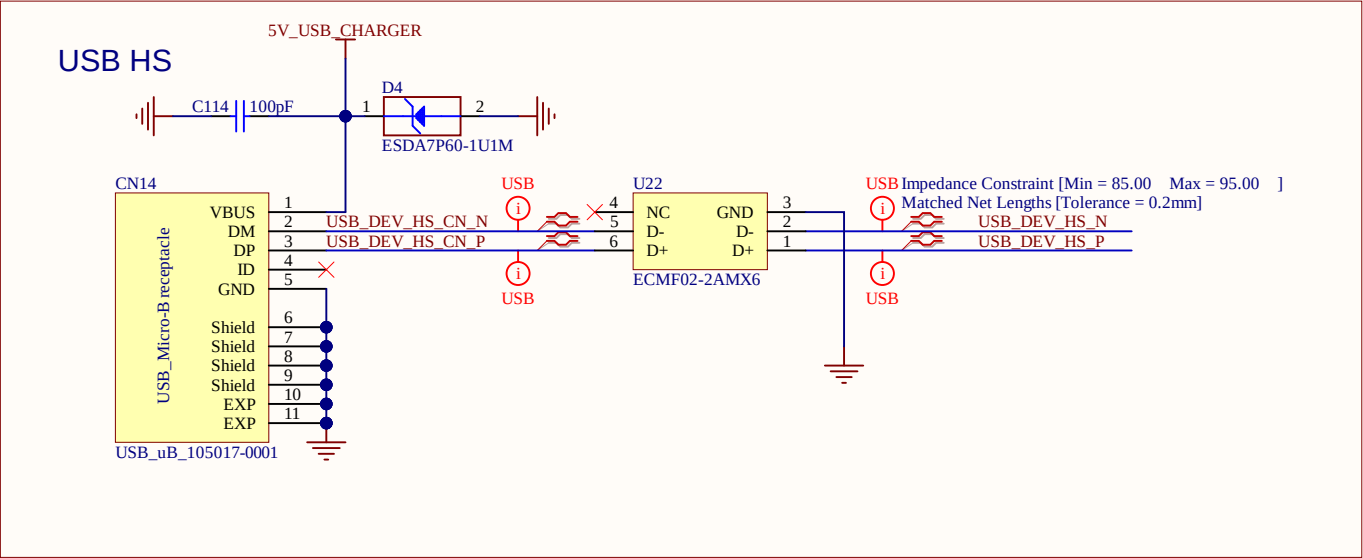
STLINK-V3E SWD I/Os



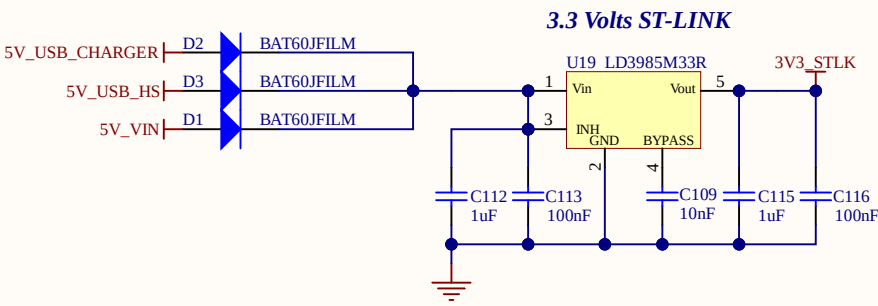
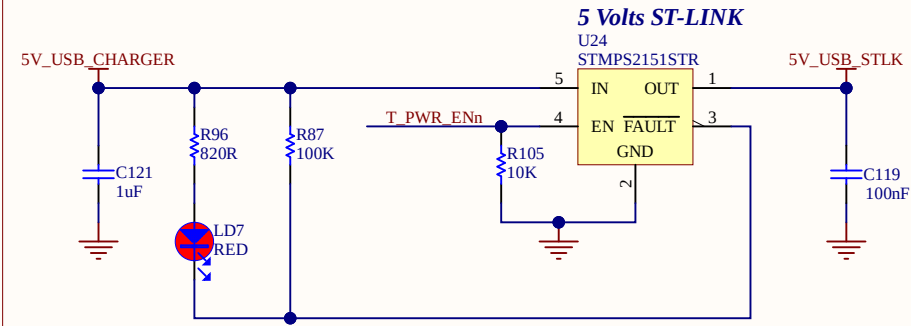
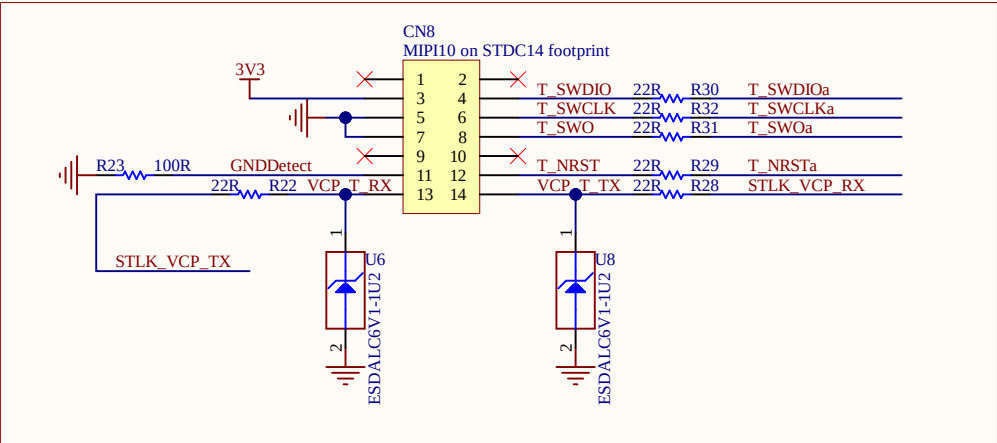
STLINK-V3E SWD POWER

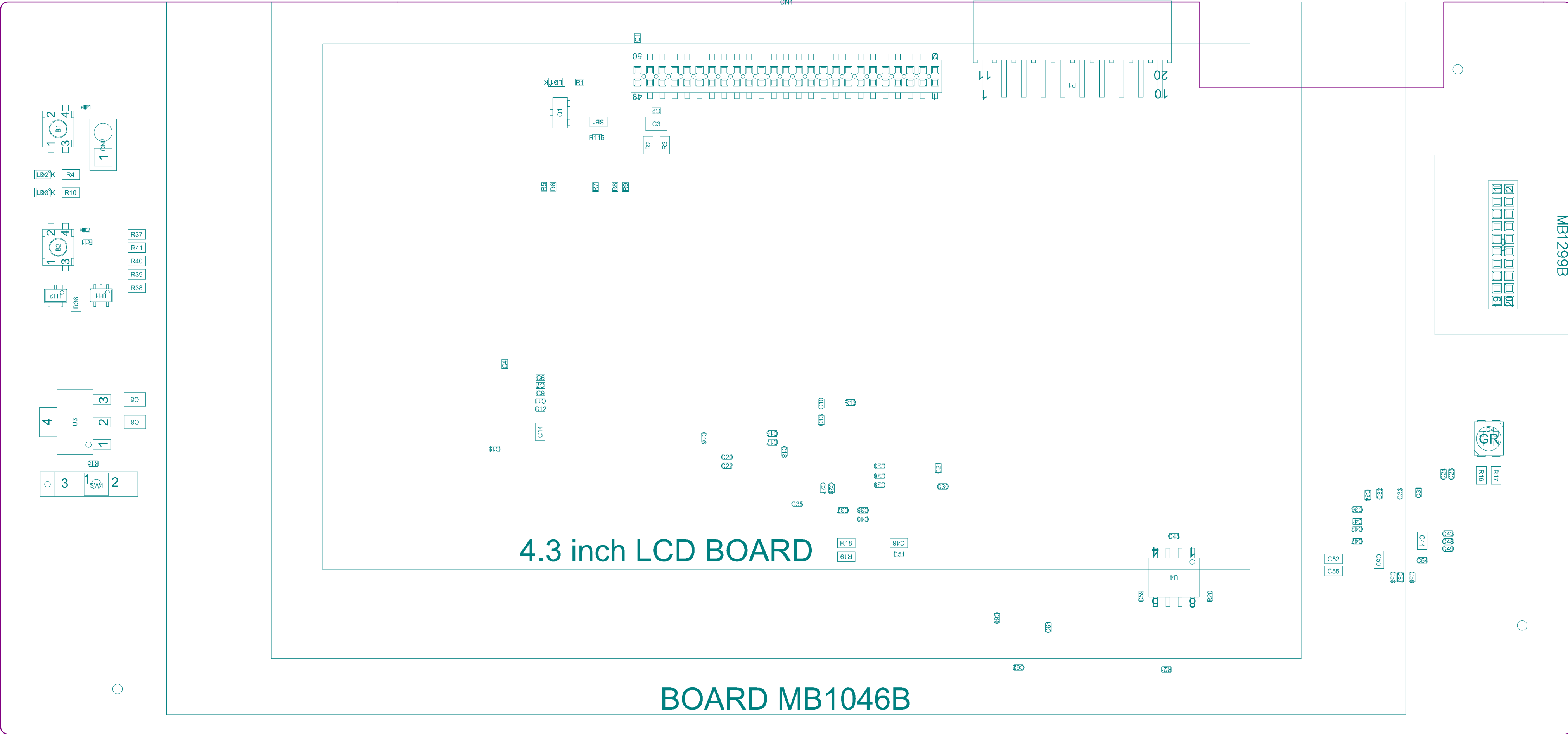


USB HS

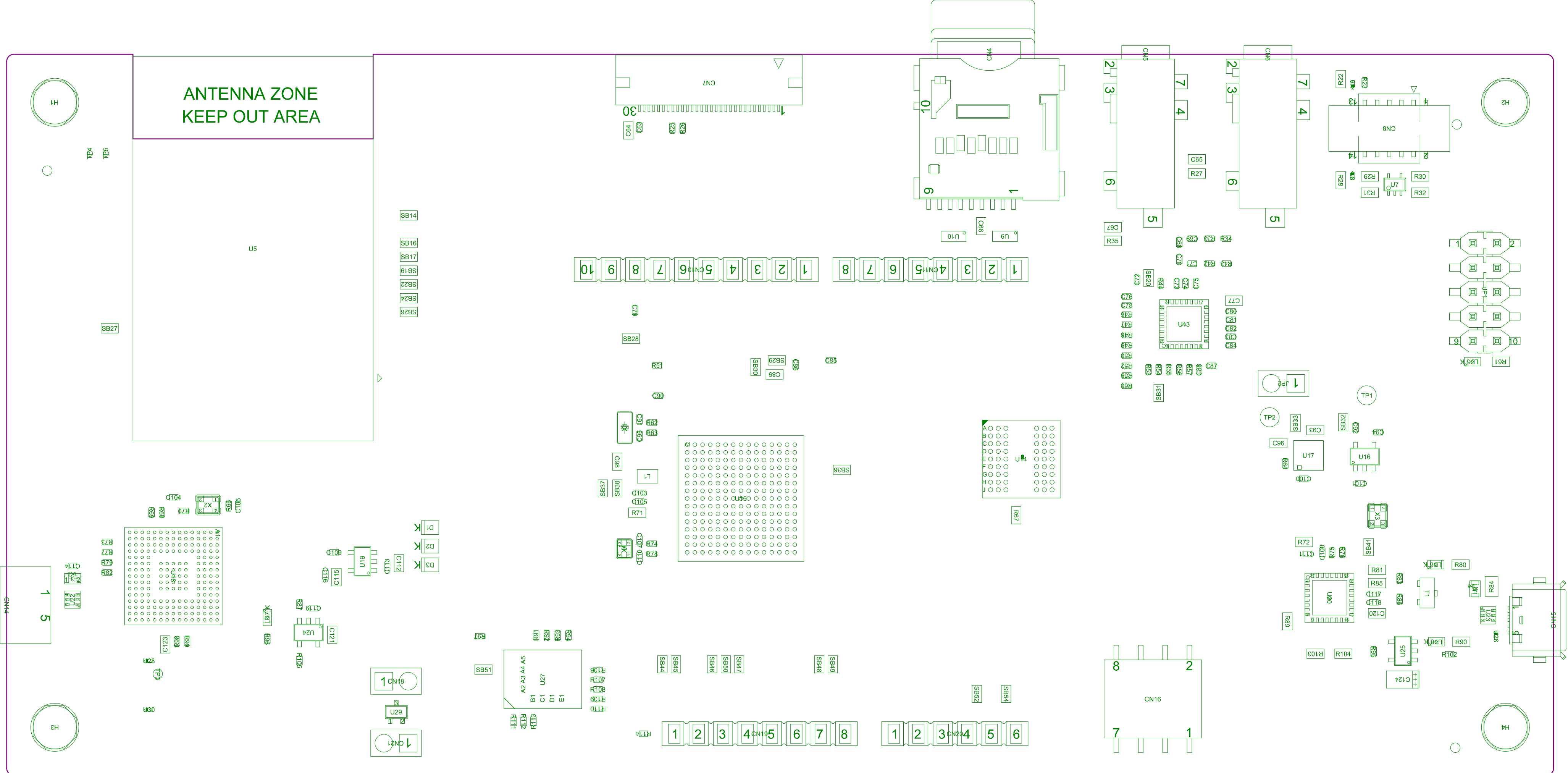


STLINK-V3E SWD POWER





Project: STM32H7B3I-DK		
Layer: M14-Top Assembly	Gerber: .GM14	
Variant: H7B3I	MB1332	
Date: 13-NOV-2020	Rev: C	



Project: STM32H7B3I-DK		
Layer: M15-Bottom Assembly	Gerber:.GM15	
Variant: H7B3I	MB1332	
Date: 13-NOV-2020	Rev: C	

