

# STM32H745I-Disco

MB1381

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Top  
TOP.SchDoc

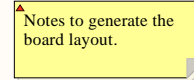


## Legend

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

Text to be added to silkscreen.

Warning text.



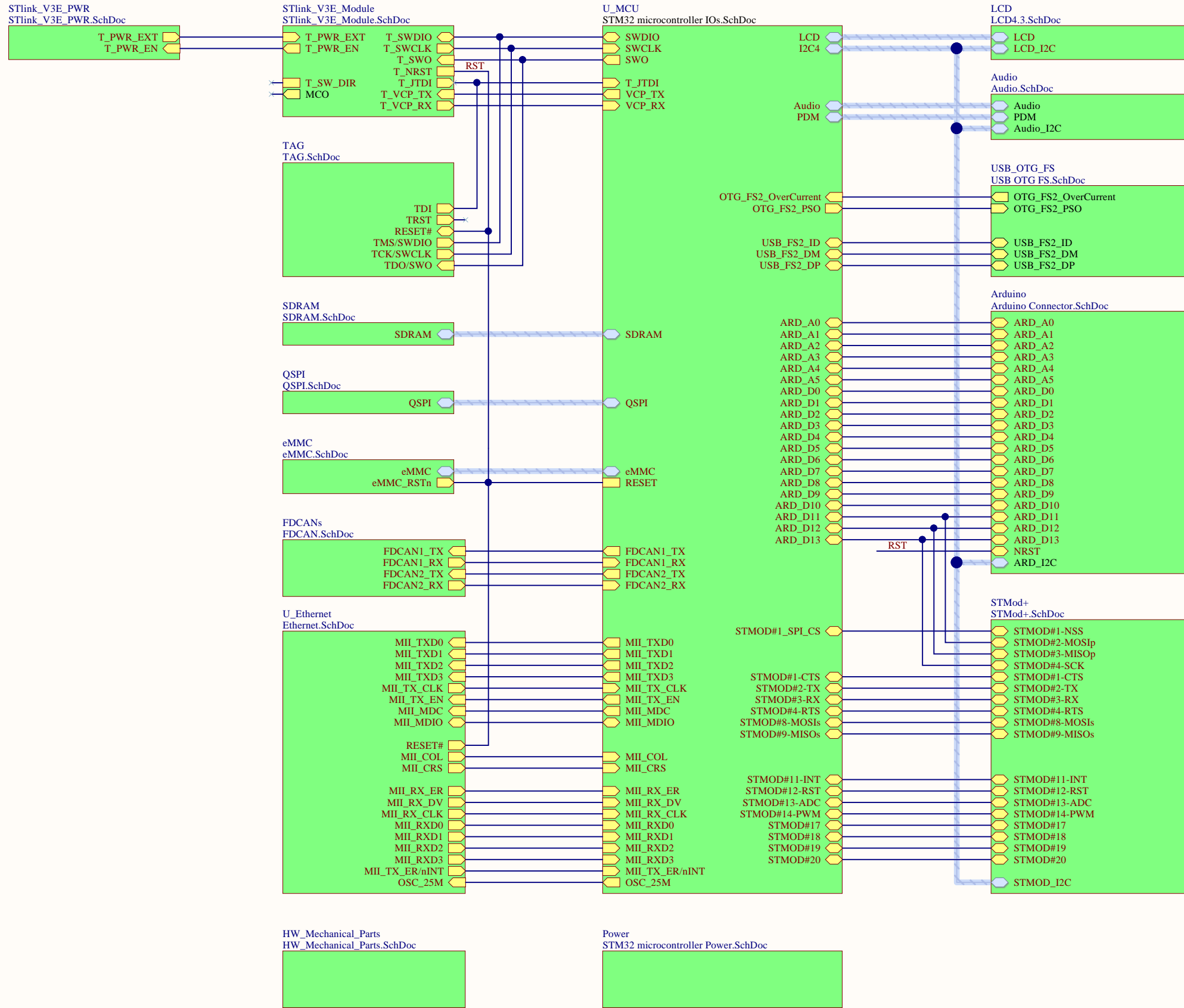
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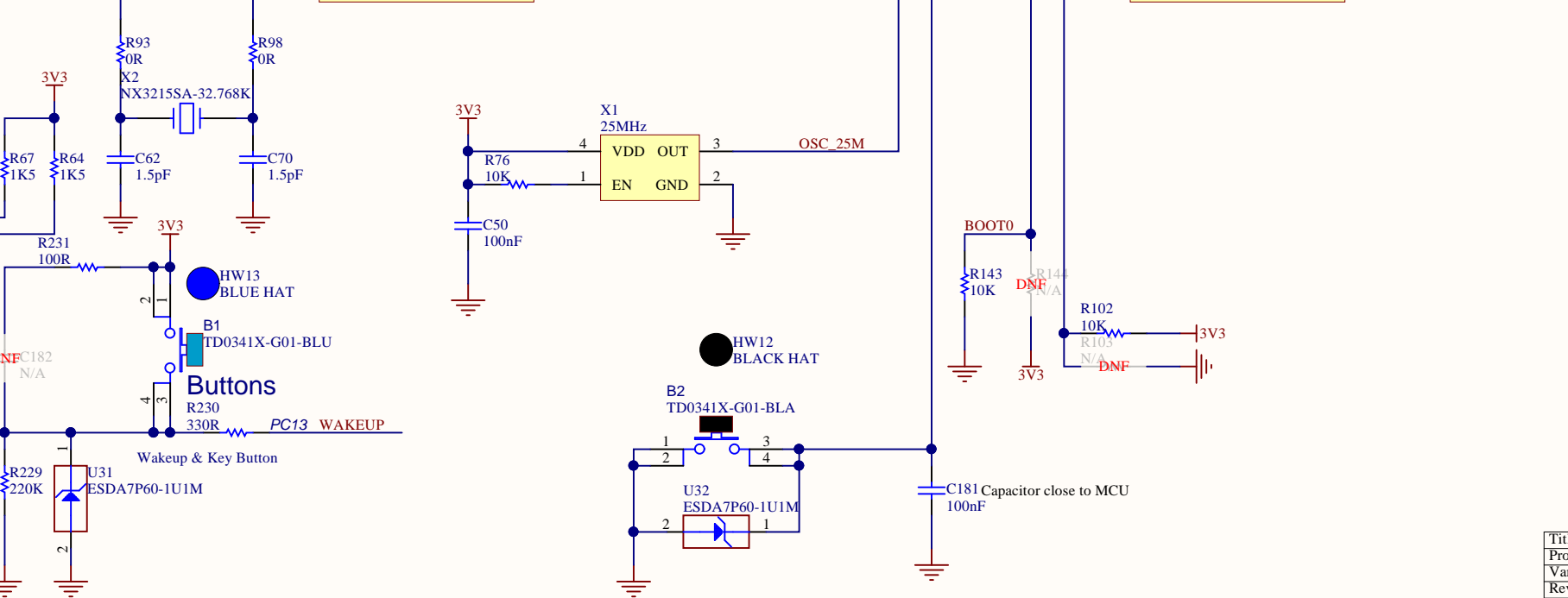
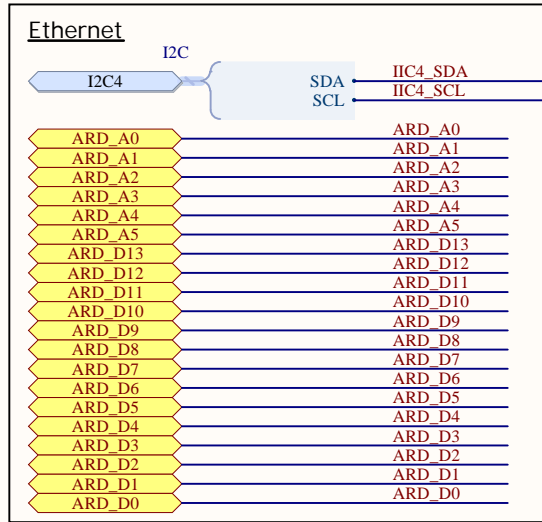
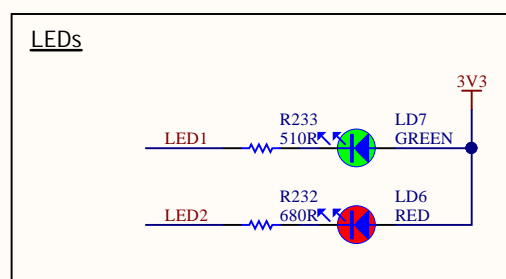
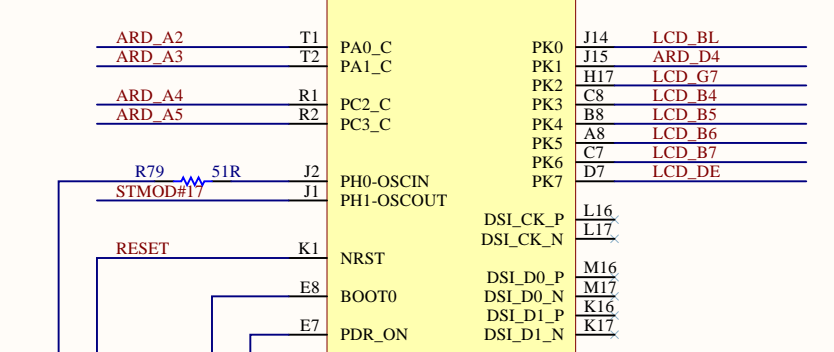
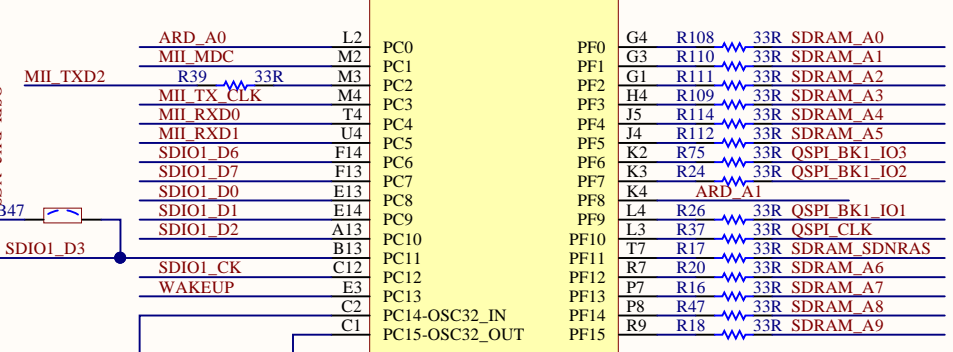
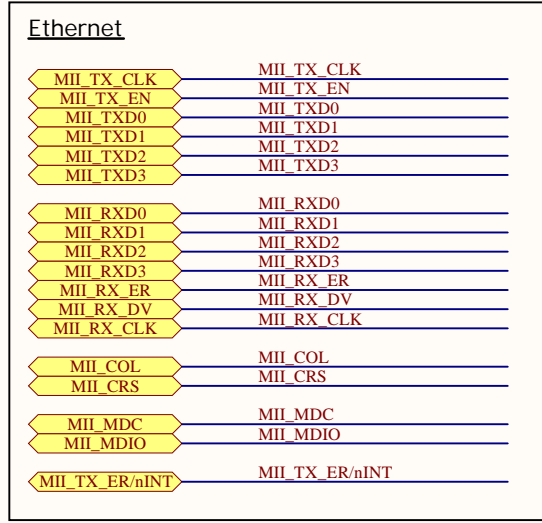
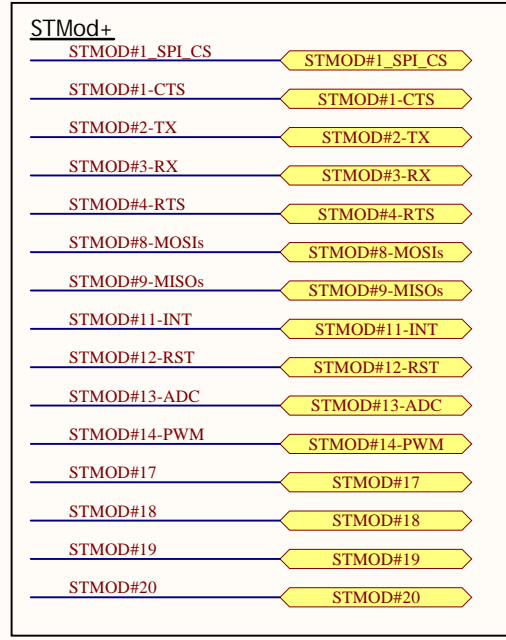
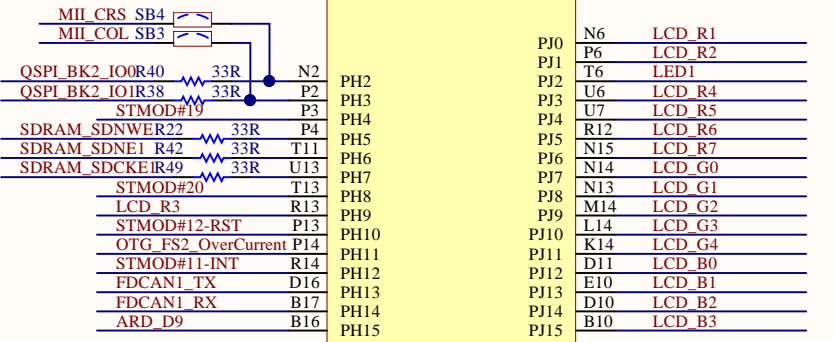
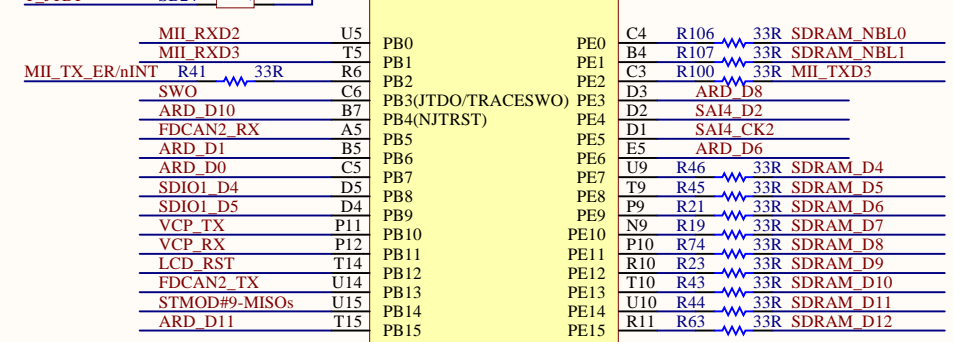
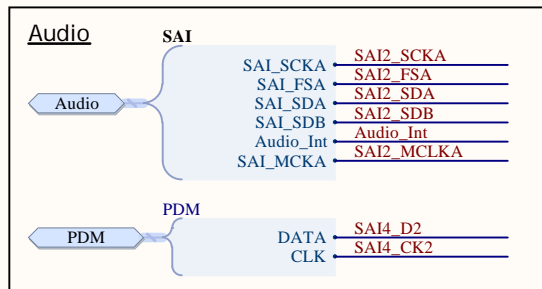
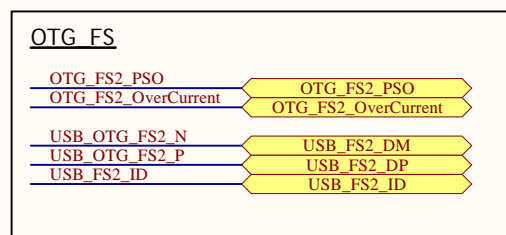
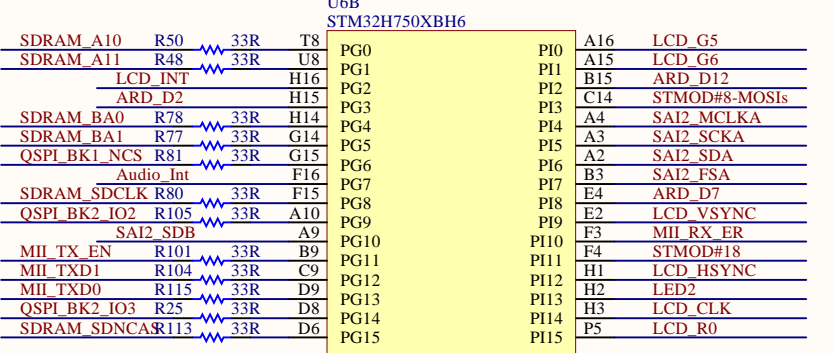
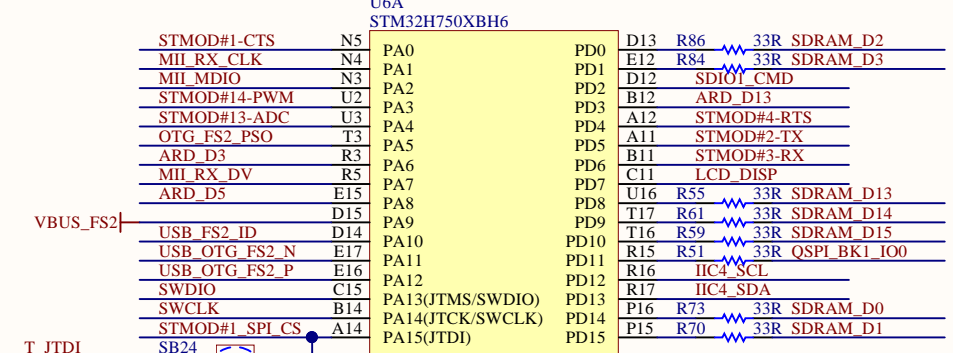
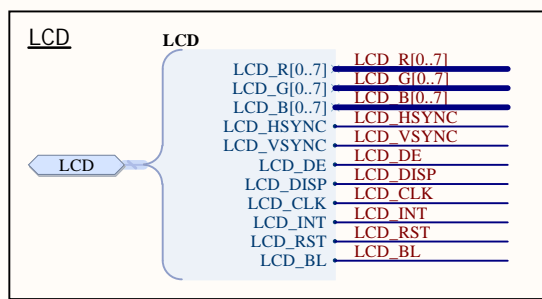
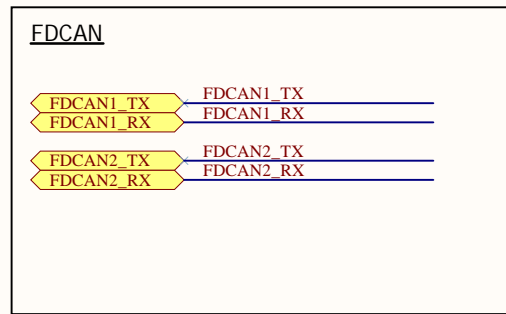
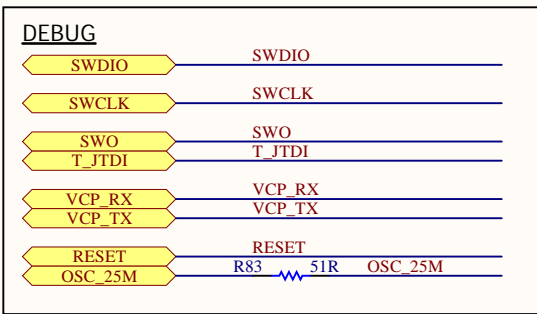
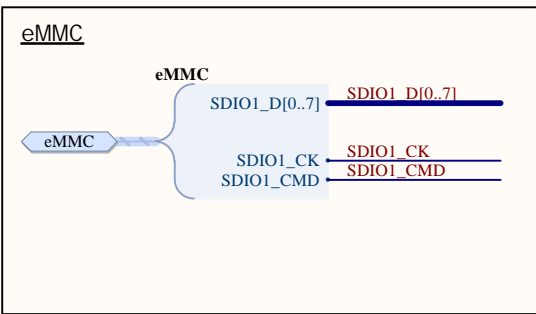
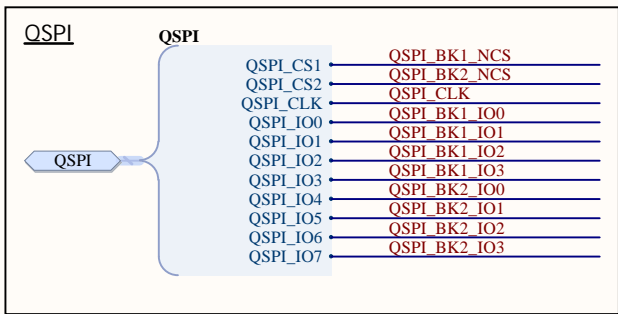
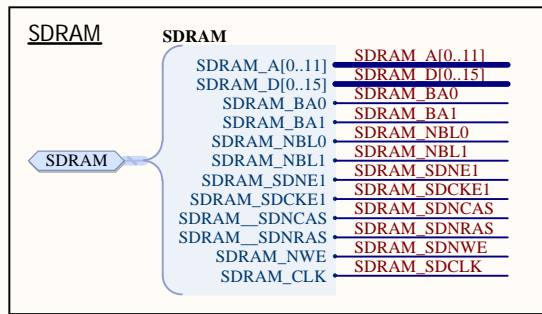
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Title: <b>Project overview</b>		
Project: <b>STM32H745I-Disco</b>		
Variant: <b>H750XB</b>		
Revision: <b>B-01</b>		Reference: <b>MB1381</b>
Size: <b>A4</b>	Date: <b>11-JUNE-18</b>	Sheet: <b>1</b> of <b>19</b>

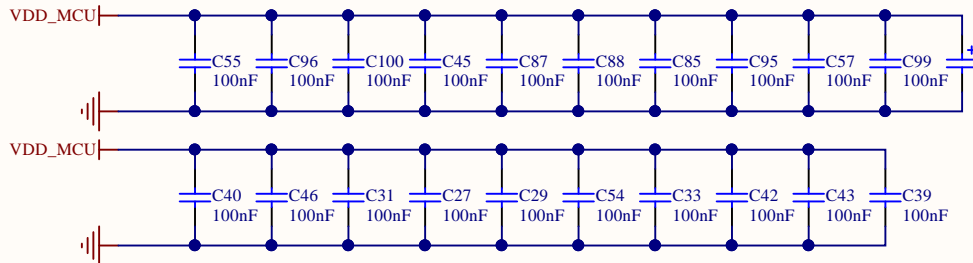
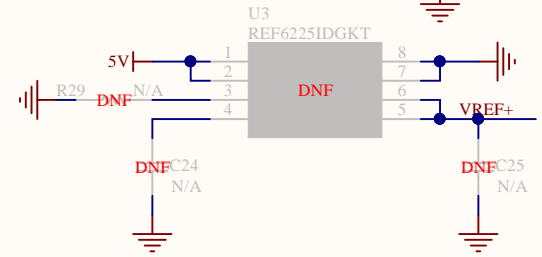
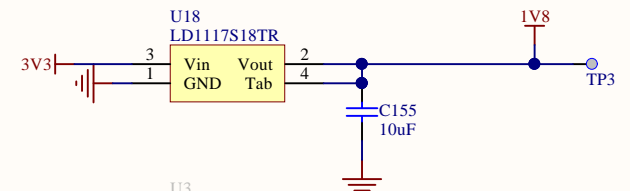
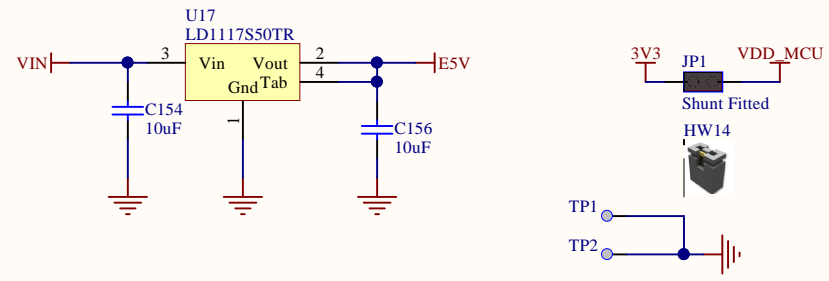
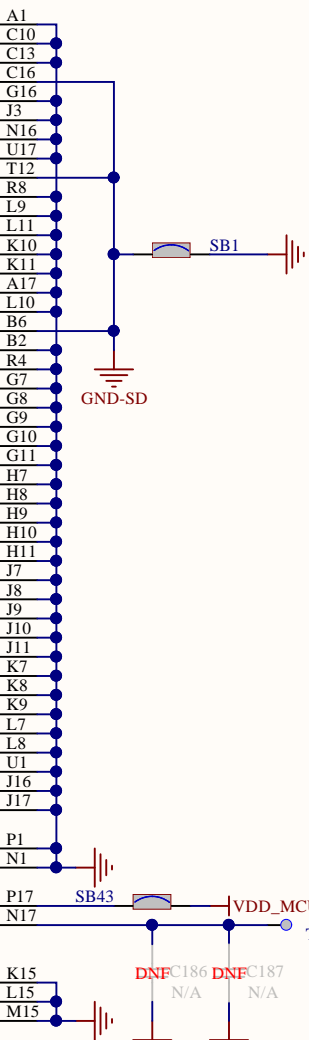
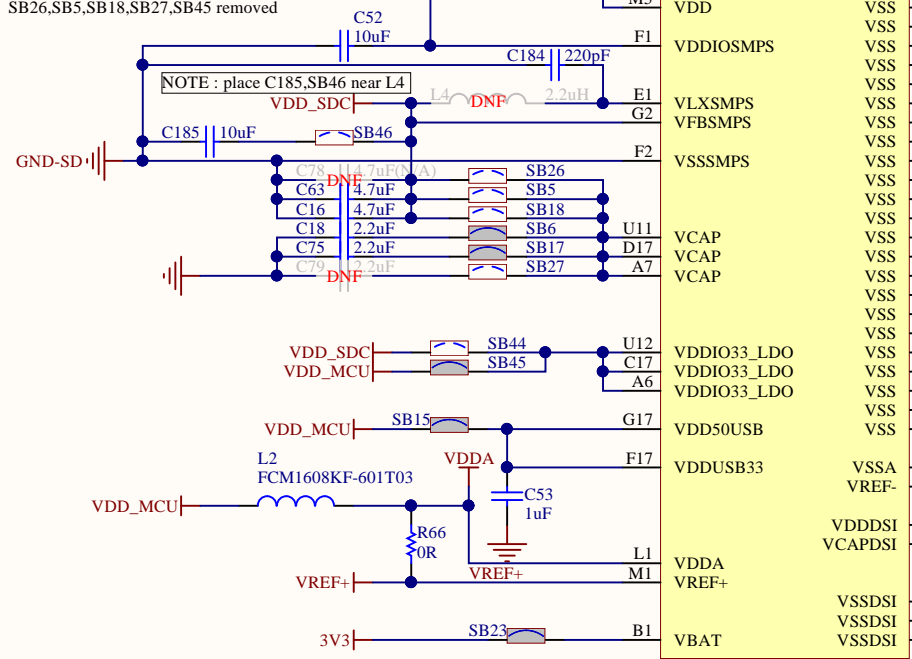




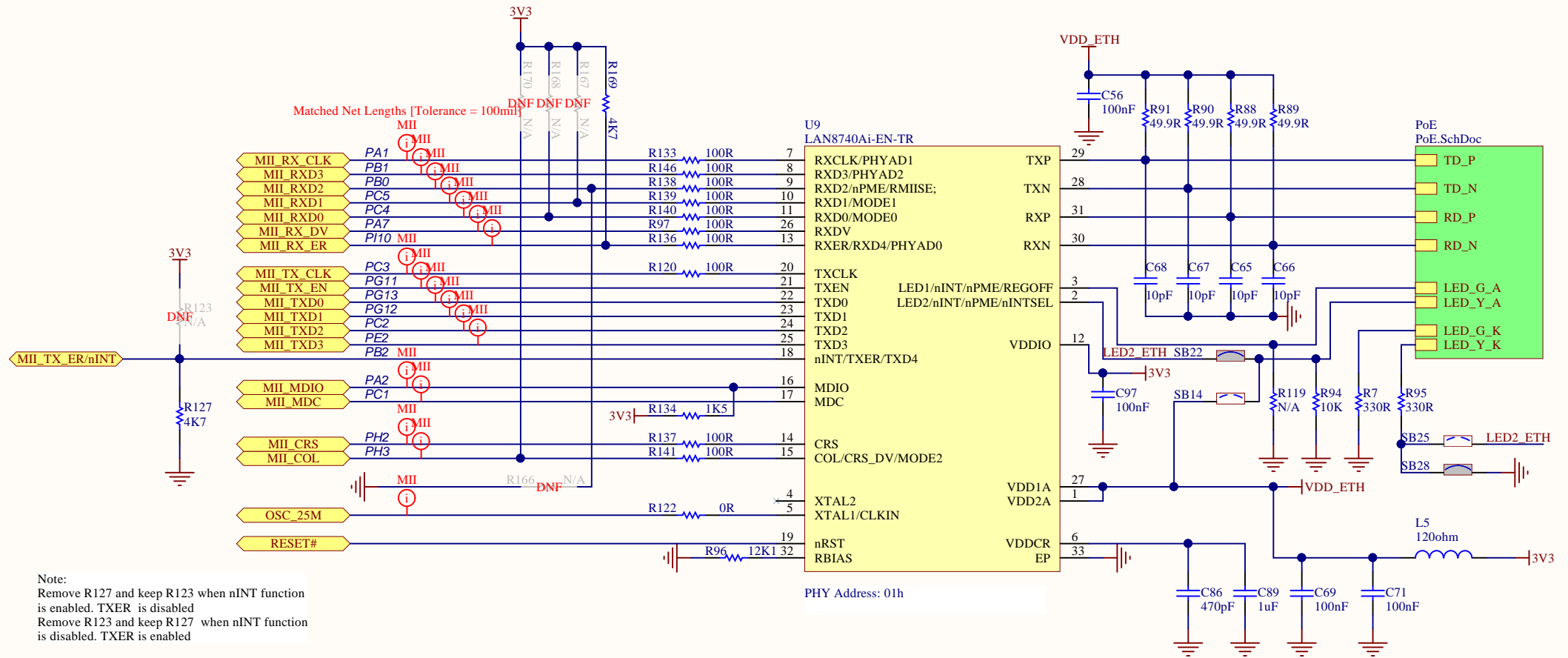


U6C  
STM32H750XBH6

NOTE :  
LDO mode:  
SB6, SB17, SB45 mounted, SB5, SB18, SB26, SB27, SB44,  
SB46, L4 removed  
SMPS mode (default):  
SB5, SB18, SB44, SB46, L4 mouned, SB6, SB17, SB27,  
SB26, SB45 removed  
SMPS +LDO mode  
SB6, SB17, SB44, SB46, L4 mouned,  
SB26, SB5, SB18, SB27, SB45 removed

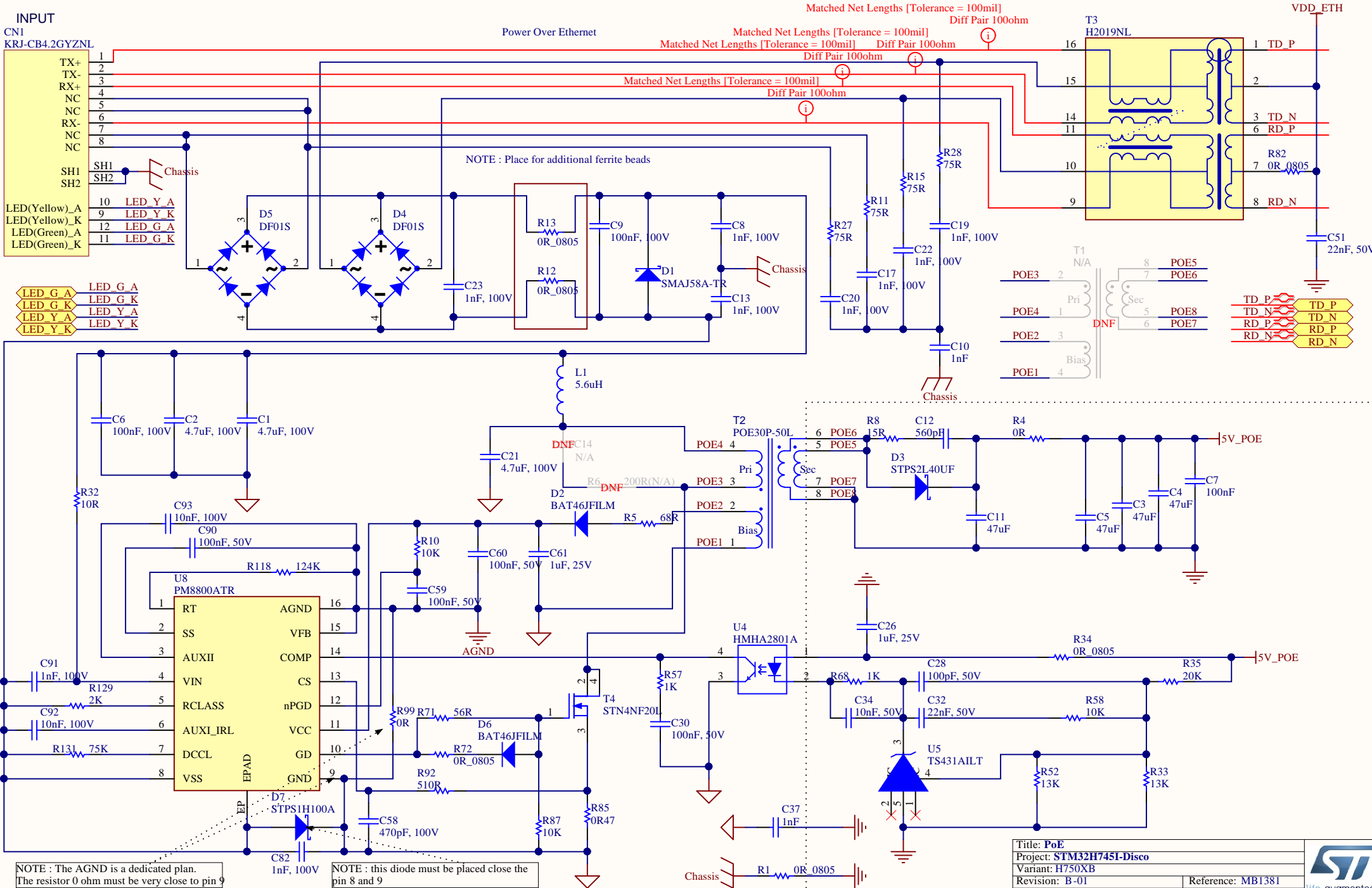


Ceramic capacitor (Low ESR <600m ohm)



Note:  
 Remove R127 and keep R123 when nINT function  
 is enabled. TXER is disabled  
 Remove R123 and keep R127 when nINT function  
 is disabled. TXER is enabled

Note:  
 keep R94 to enable the TXER function, and close  
 SB22,SB28,open SB14,SB25 for LED2  
 Remove R94 and SB14 to enable nINT function, and  
 close SB14,SB25, open SB22,SB28 for LED2



**INPUT**

CN1  
KRJ-CB4.2GYZNL

TX+	1
TX-	2
RX+	3
NC	4
NC	5
RX-	6
NC	7
NC	8
SH1	SH1
SH2	SH2
LED(Yellow)_A	10 LED_Y_A
LED(Yellow)_K	9 LED_Y_K
LED(Green)_A	12 LED_G_A
LED(Green)_K	11 LED_G_K

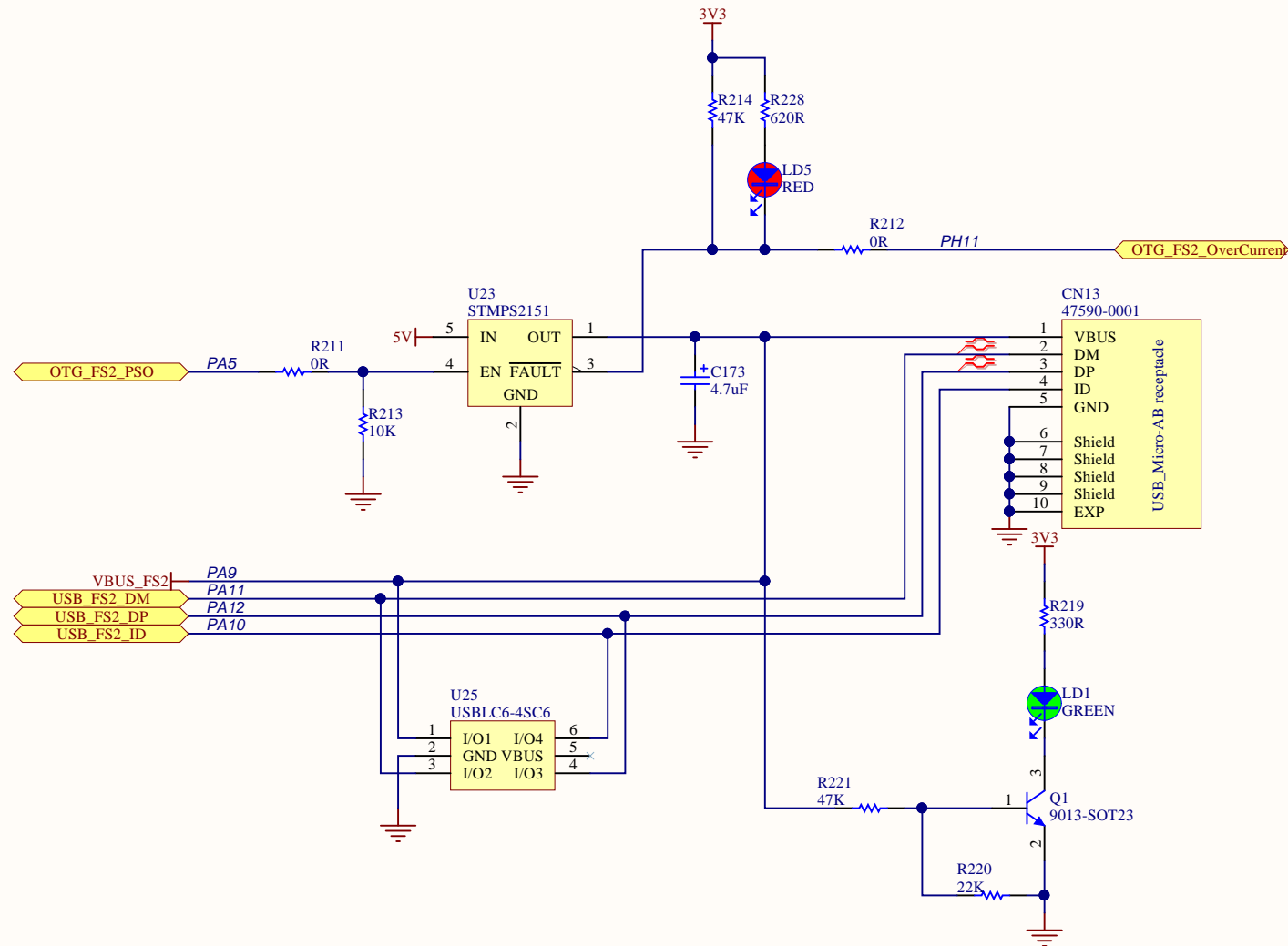
LED_G_A	LED_G_A
LED_G_K	LED_G_K
LED_Y_A	LED_Y_A
LED_Y_K	LED_Y_K

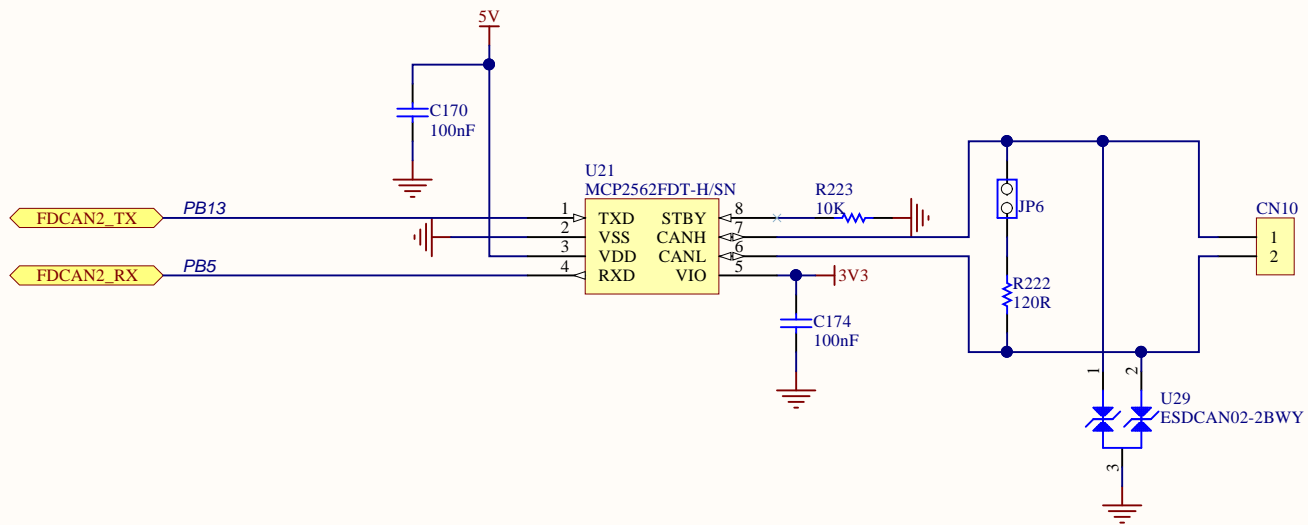
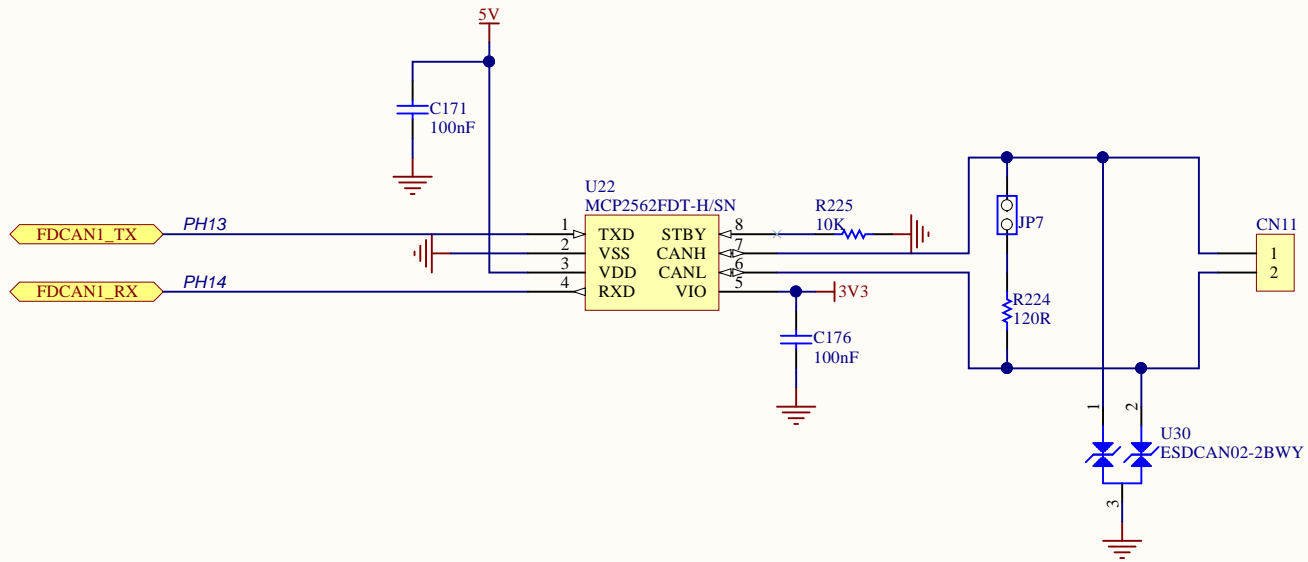
NOTE : The AGND is a dedicated plan.  
The resistor 0 ohm must be very close to pin 9

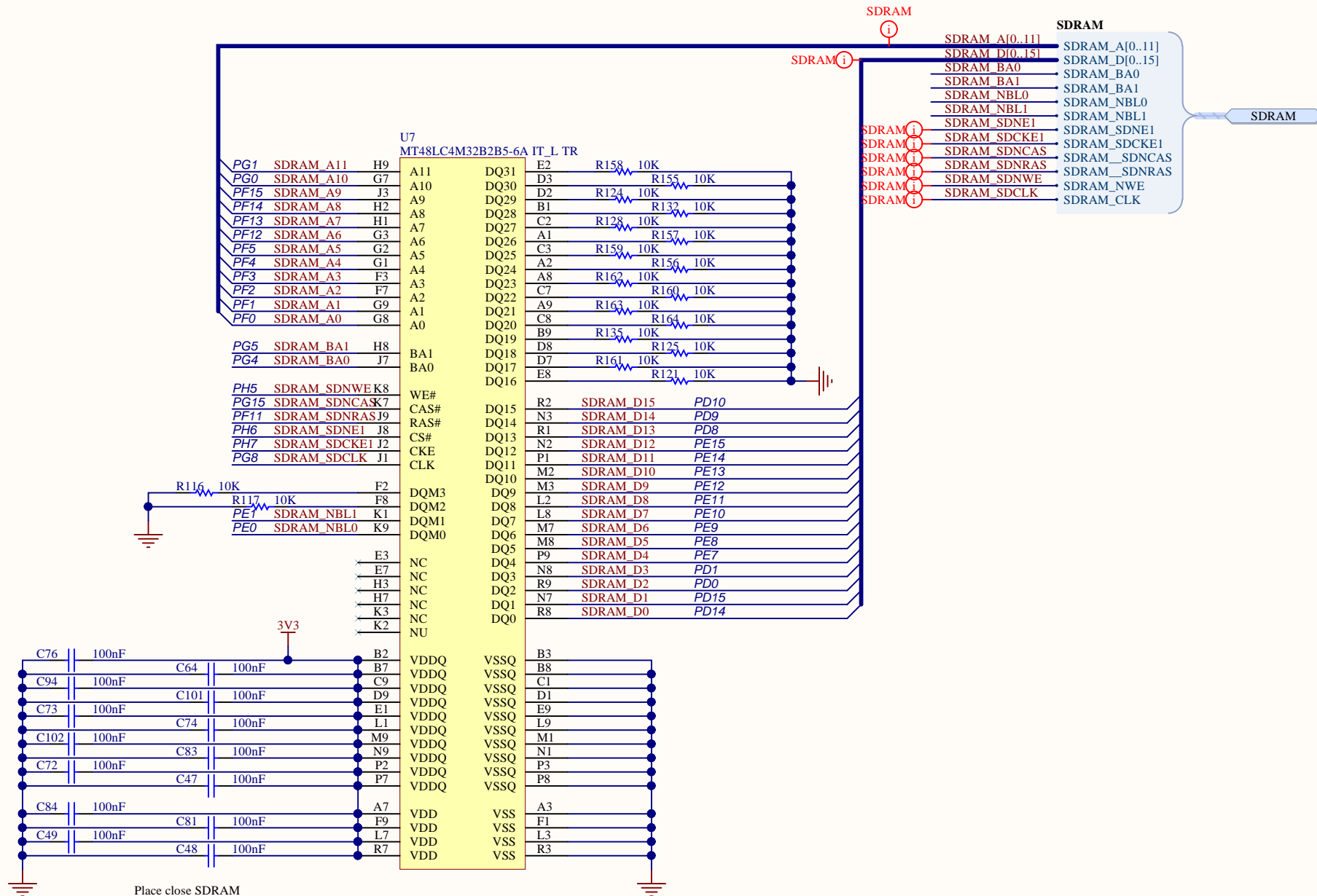
NOTE : this diode must be placed close the  
pin 8 and 9

Title: PoE	
Project: STM32H745I-Disco	
Variant: H750XB	
Revision: B-01	
Size: A4	Reference: MB1381
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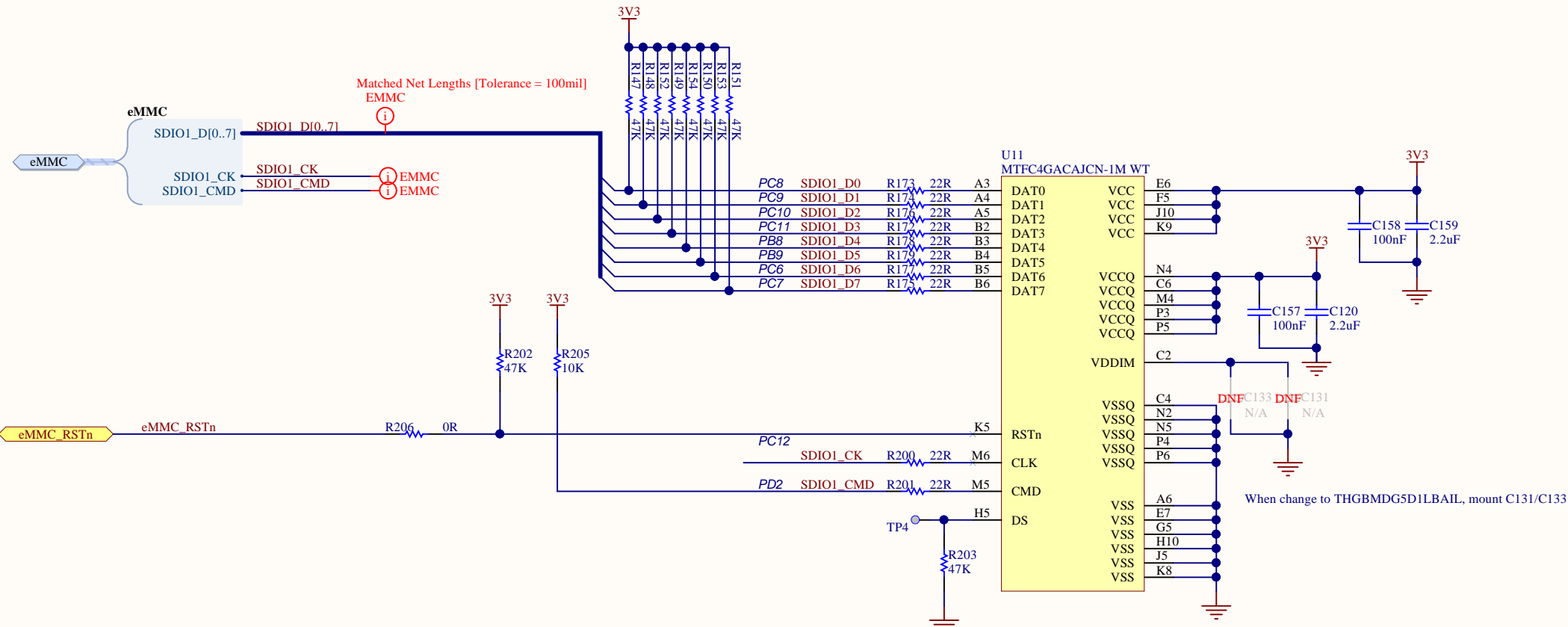






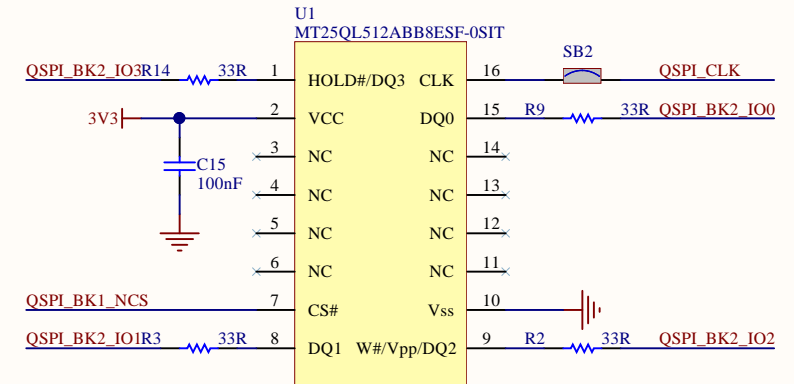
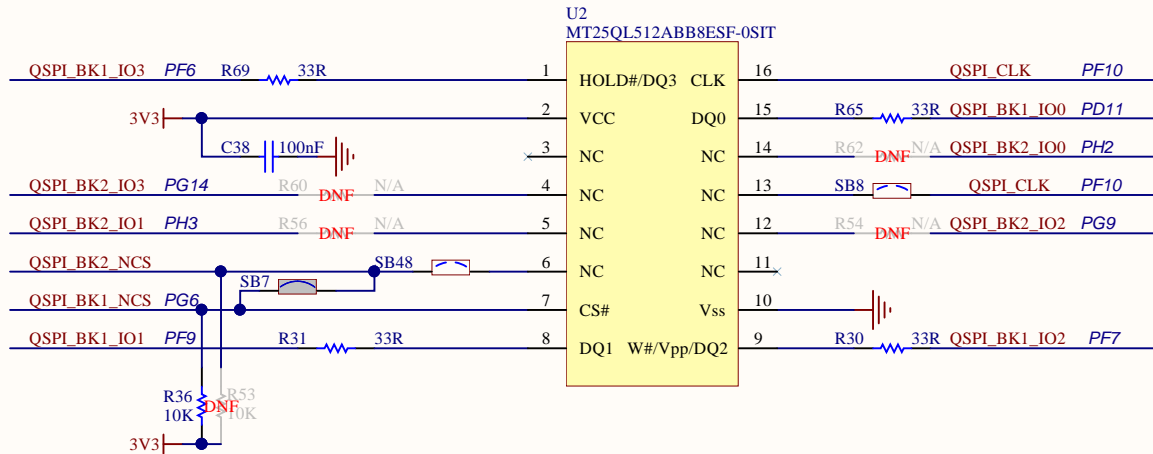
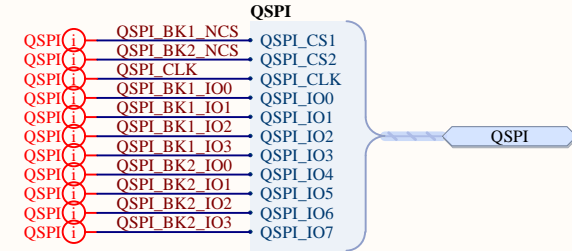


Place close SDRAM



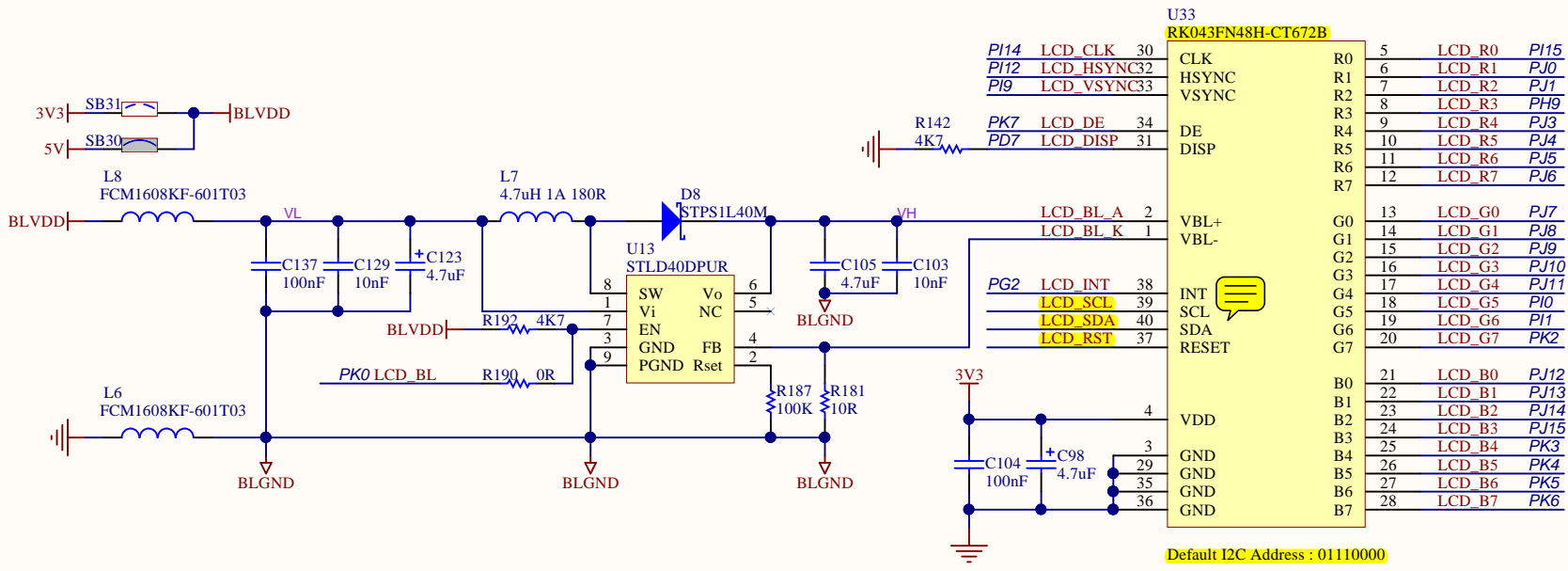
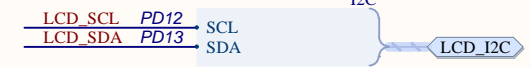
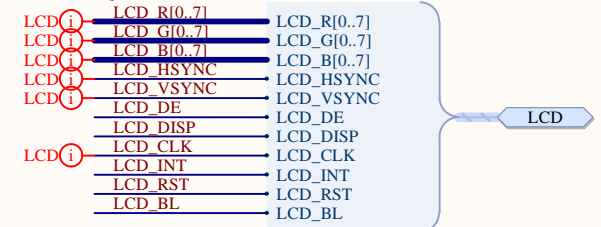


Matched Net Lengths [Tolerance = 100mil]



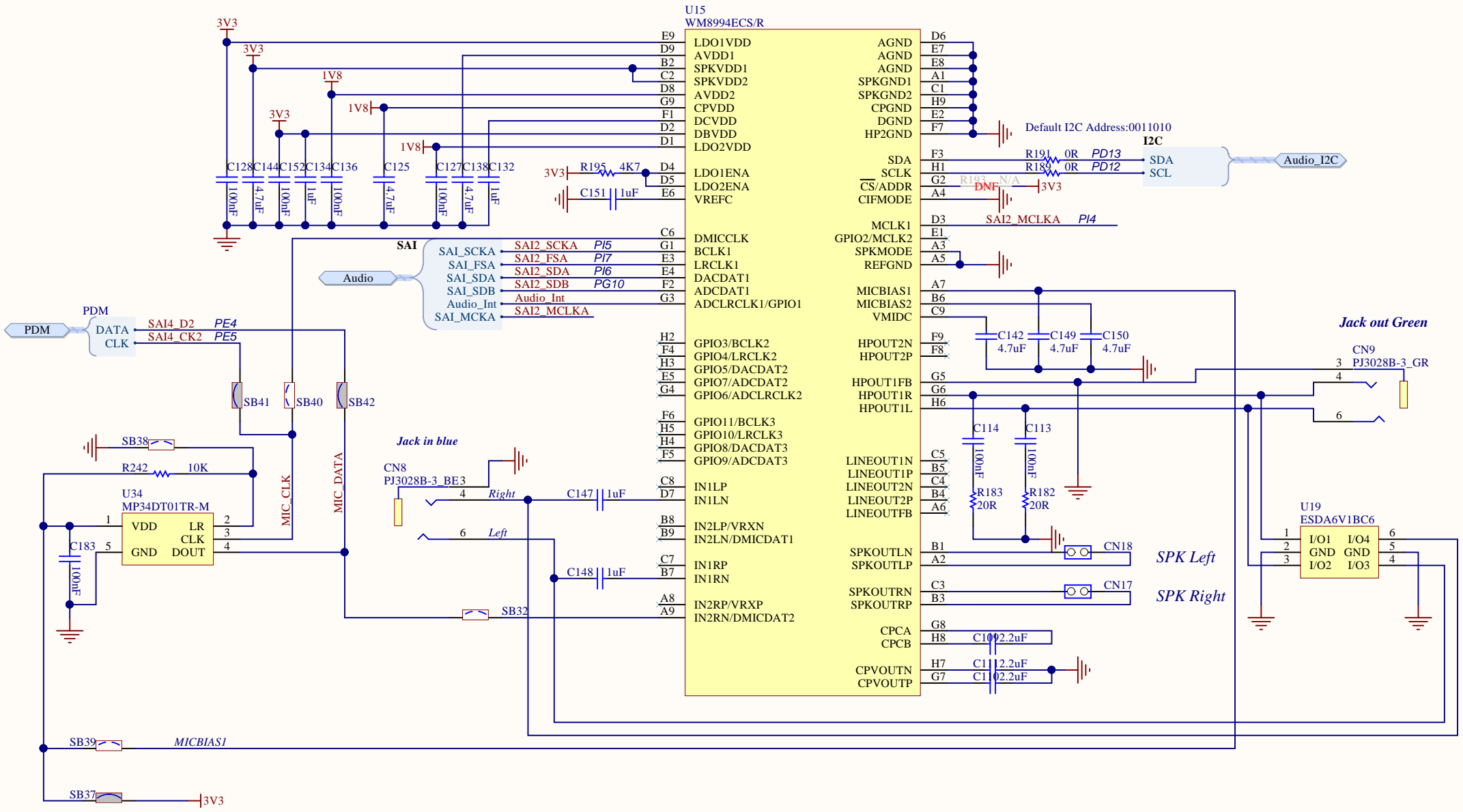
Twin Quad SPI Flash solutions:

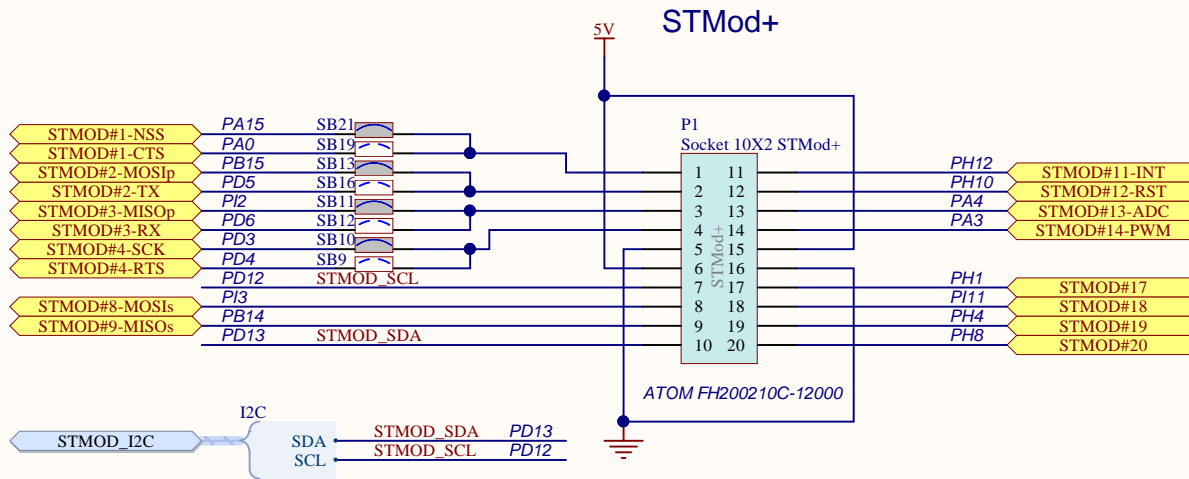
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Two Quad SPI Flash	U1:MT25QL512ABB8ESF-0SIT	U2:MT25QL512ABB8ESF-0SIT	R14/R3/R2/R9/SB2/C15 ON	R53/R62/R54/R56/R60/SB8/SB48 OFF

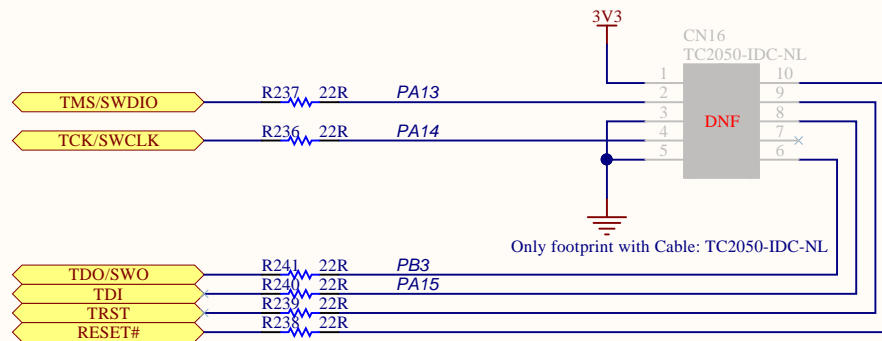


Default I2C Address : 01110000

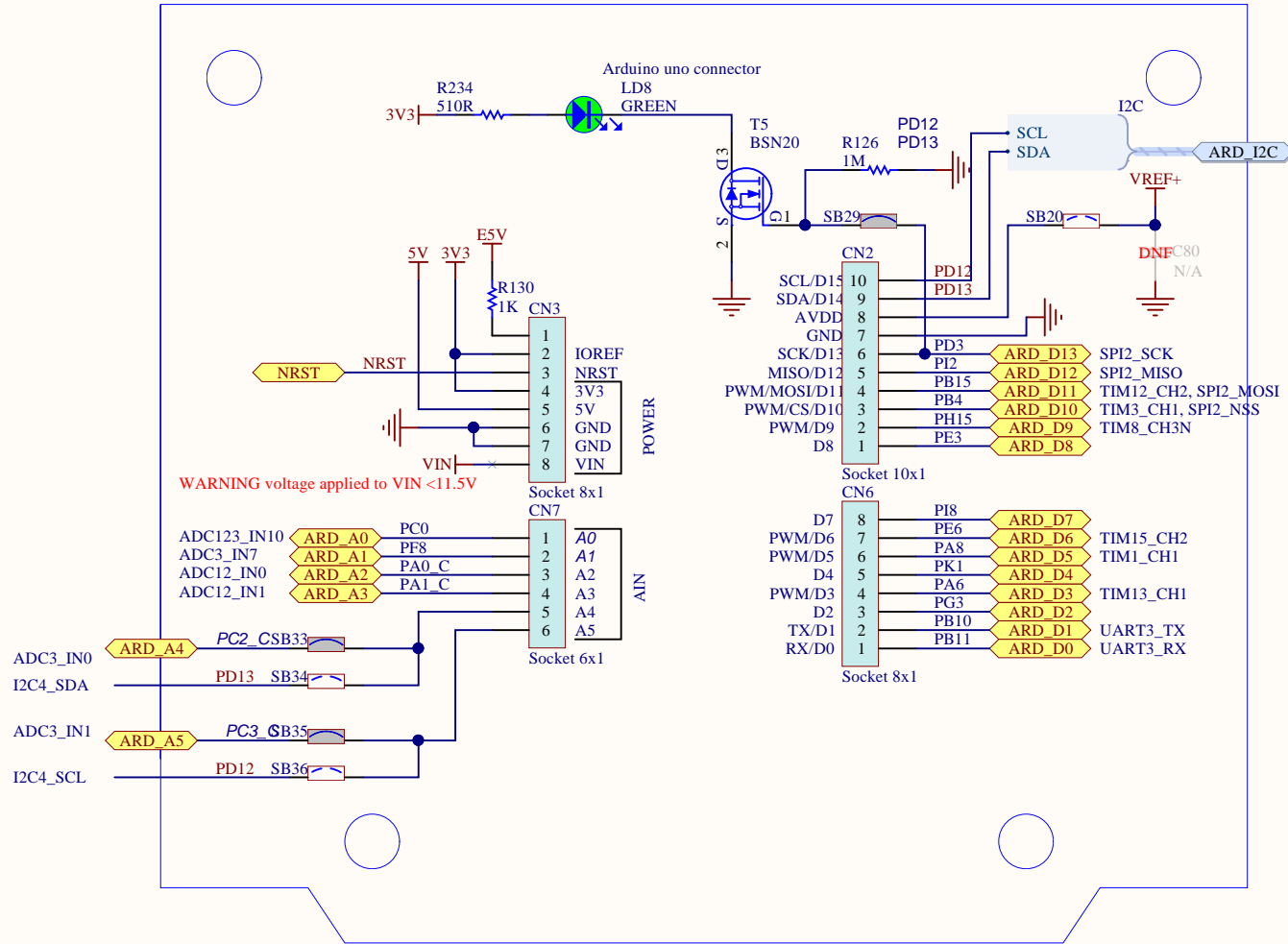
Backlight driver & PFC of LCD panel

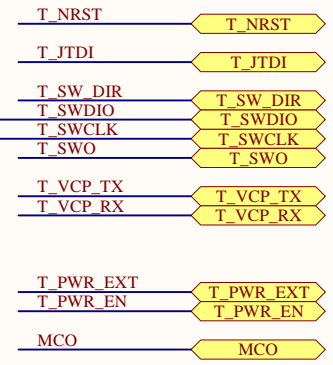
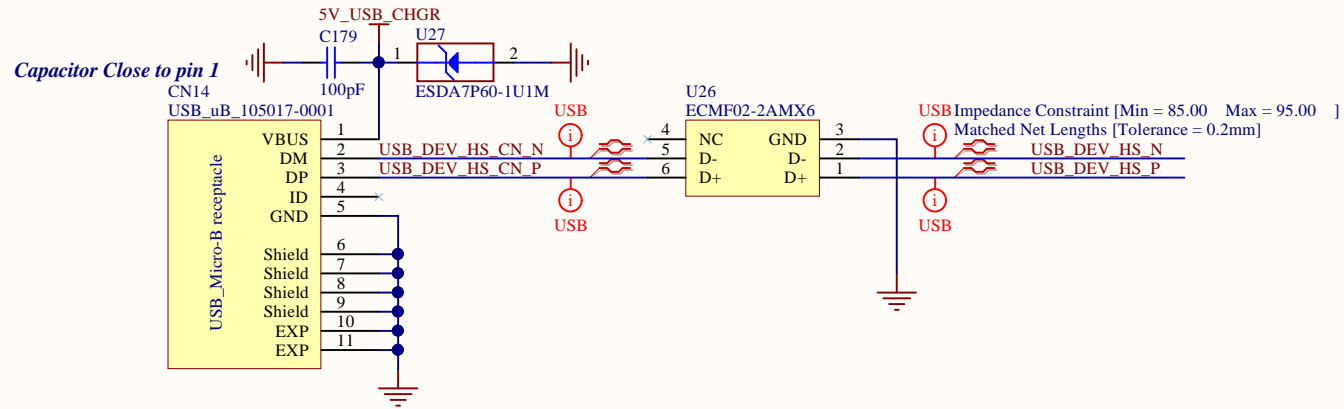




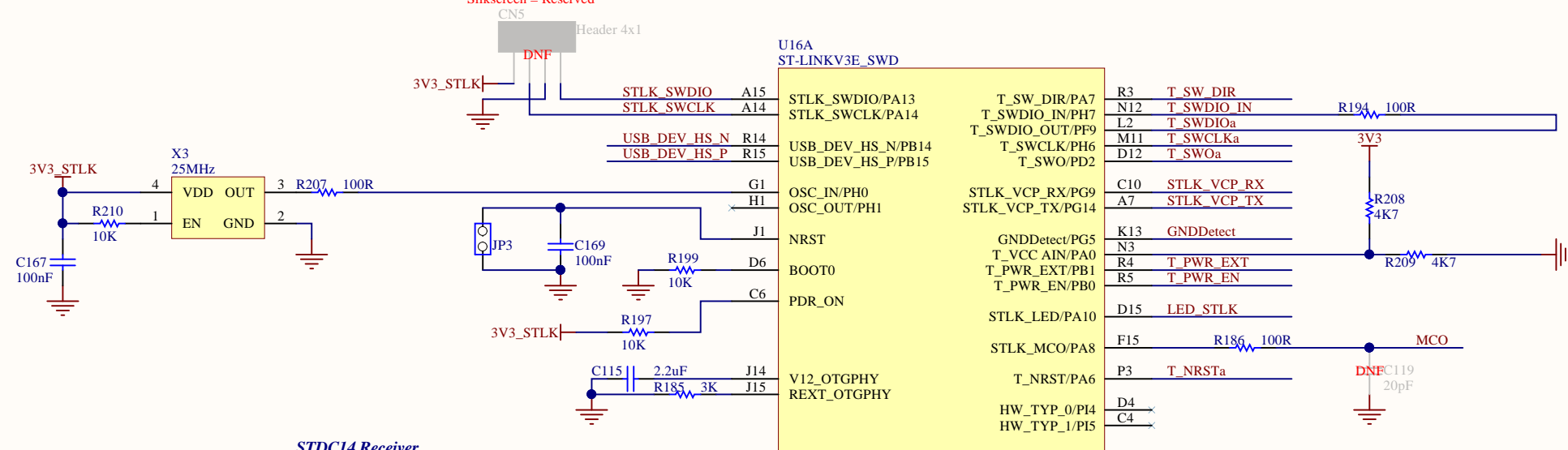


Place this connector close to STDC, they will share the same ESD components

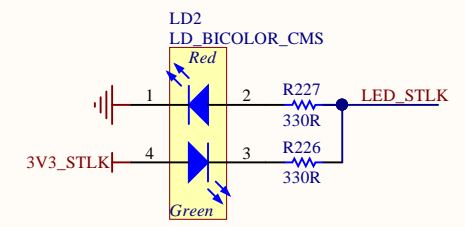
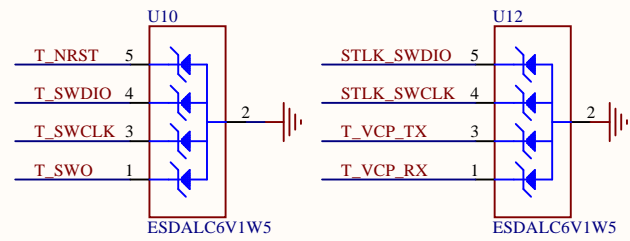
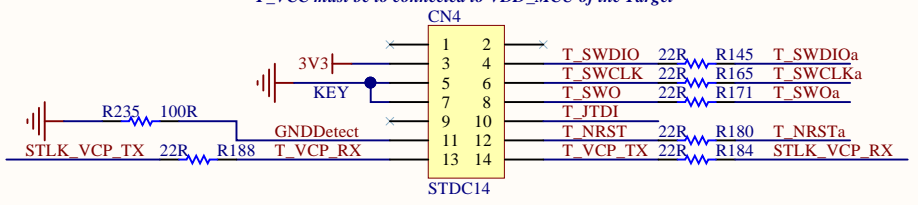


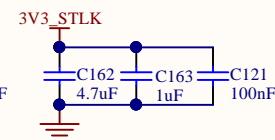
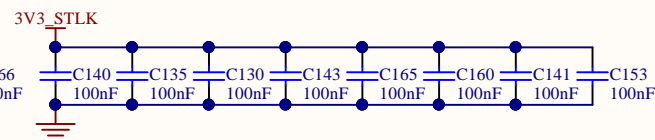
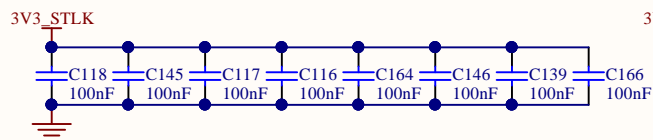
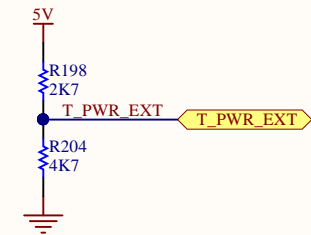
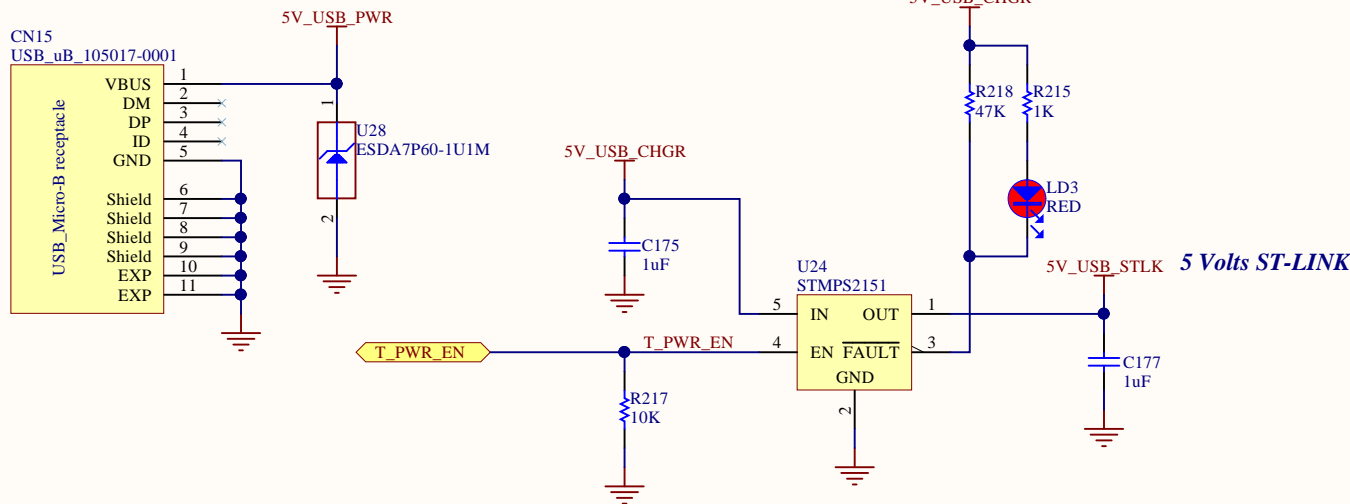
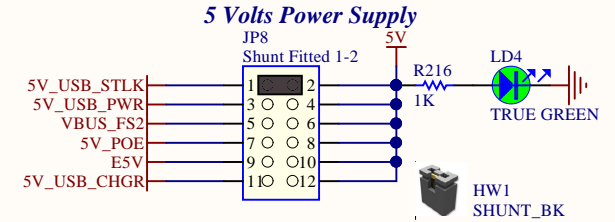
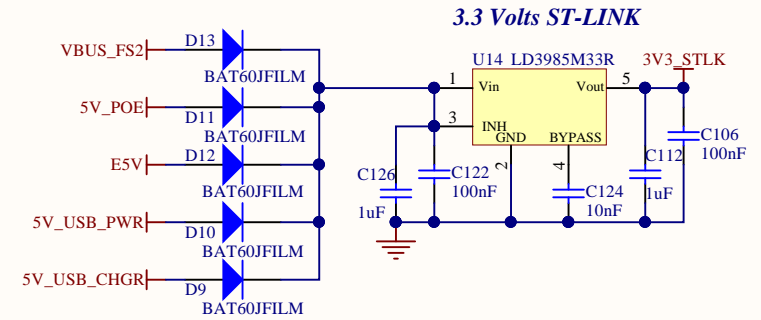
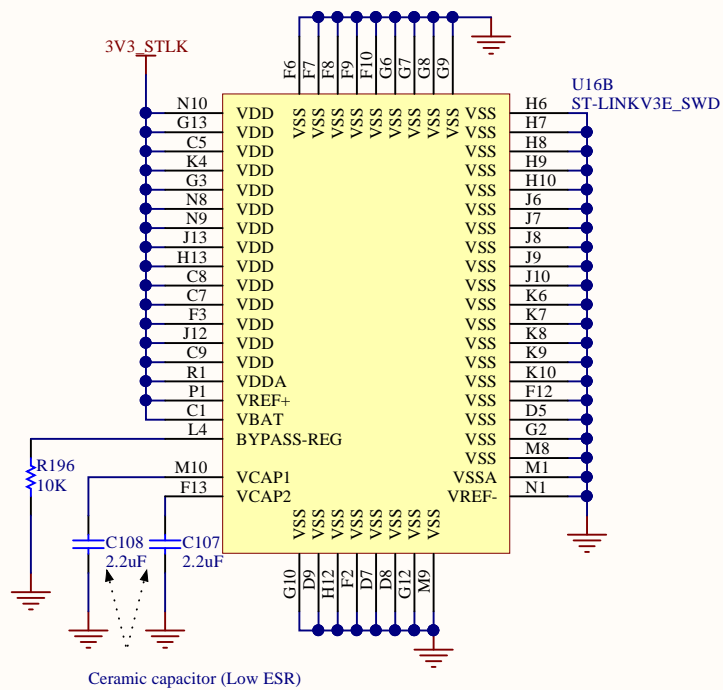


**Must be on a border or the PCB.**  
Silkscreen = Reserved



**STDC14 Receiver**  
T\_VCC must be connected to VDD\_MCU of the Target







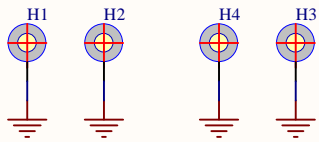
# HW Mechanical parts

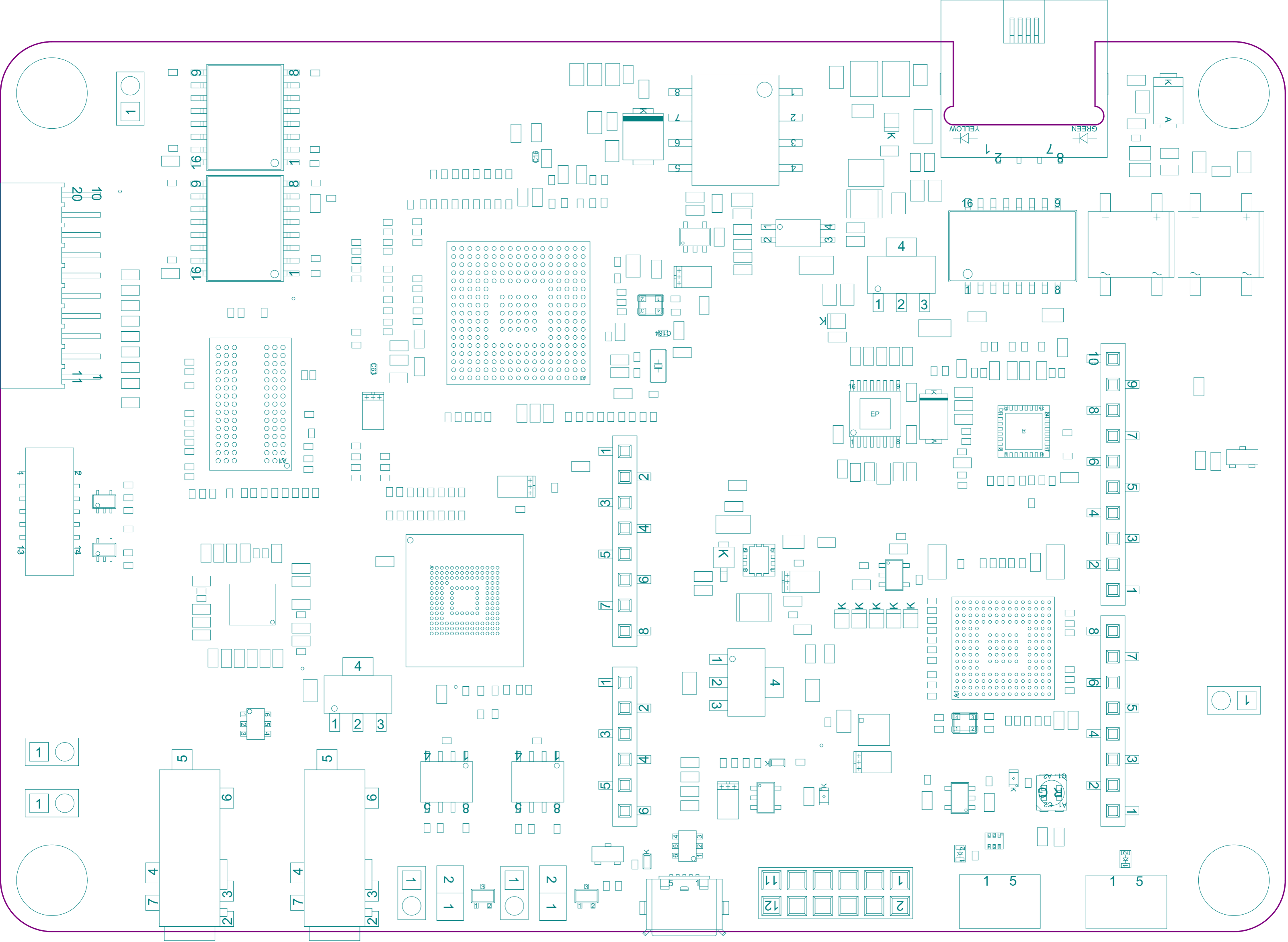
HW6  
MB1381A  
PCB

HW7  
MB1381A-01 XXXX  
BOARD REF

HW8  
STM32H745I-Disco  
BOARD CPN

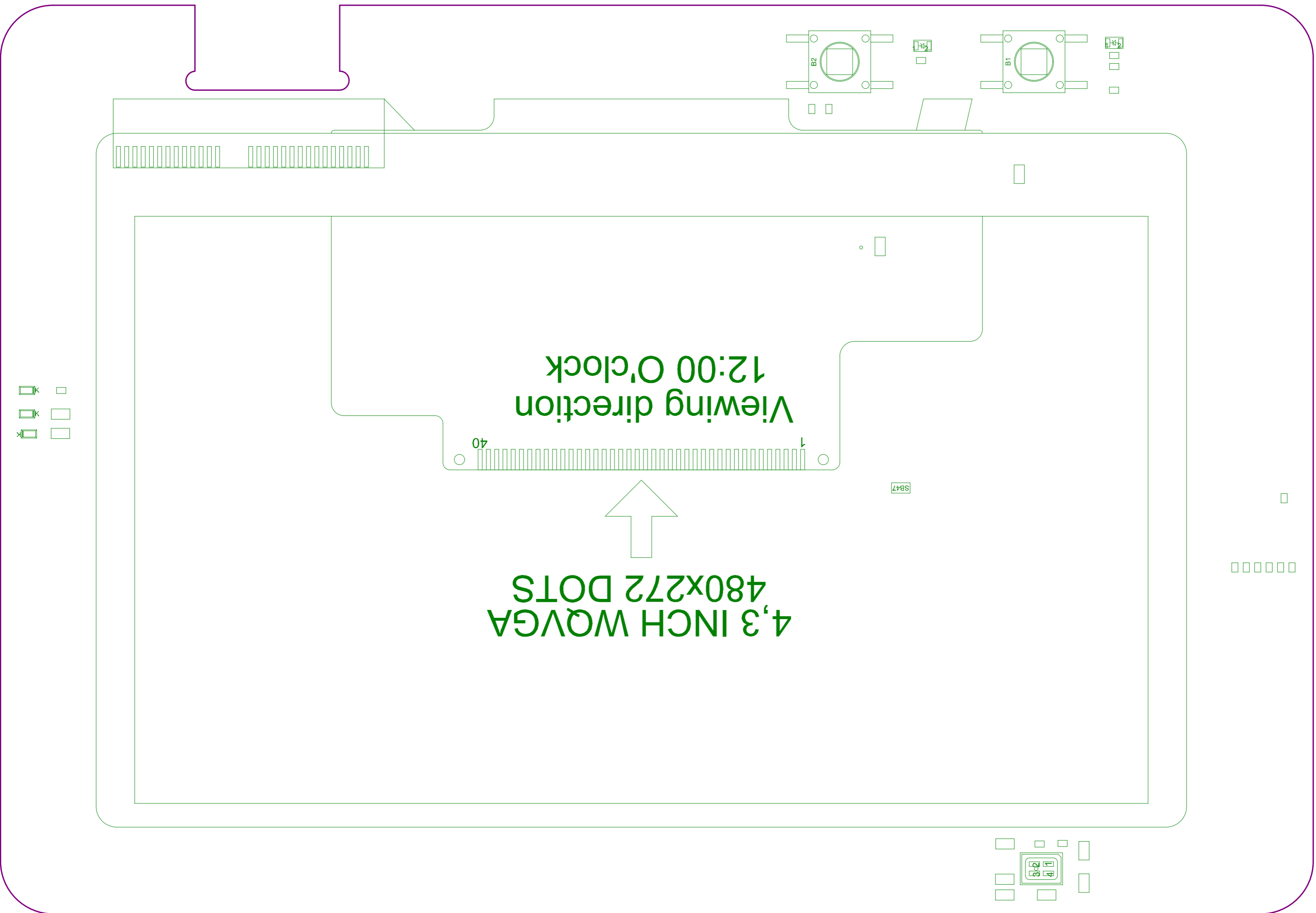
HW4 LOGO ST    HW5 LOGO CE    HW3 LOGO ESD    HW9 LOGO ROHS    HW10 LOGO STM32



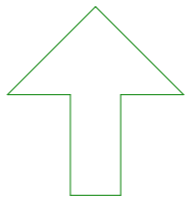


2

LAYER 2 (GND PLANE)



4,3 INCH WQVGA  
480X272 DOTS



Viewing direction  
12:00 O'clock

40

1

SB47

41

42

B1

B2

