

STM32F413H-DISCO

MB1274

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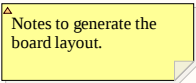
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Legend

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

Text to be added to silkscreen.

Warning text.



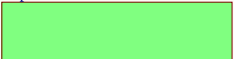
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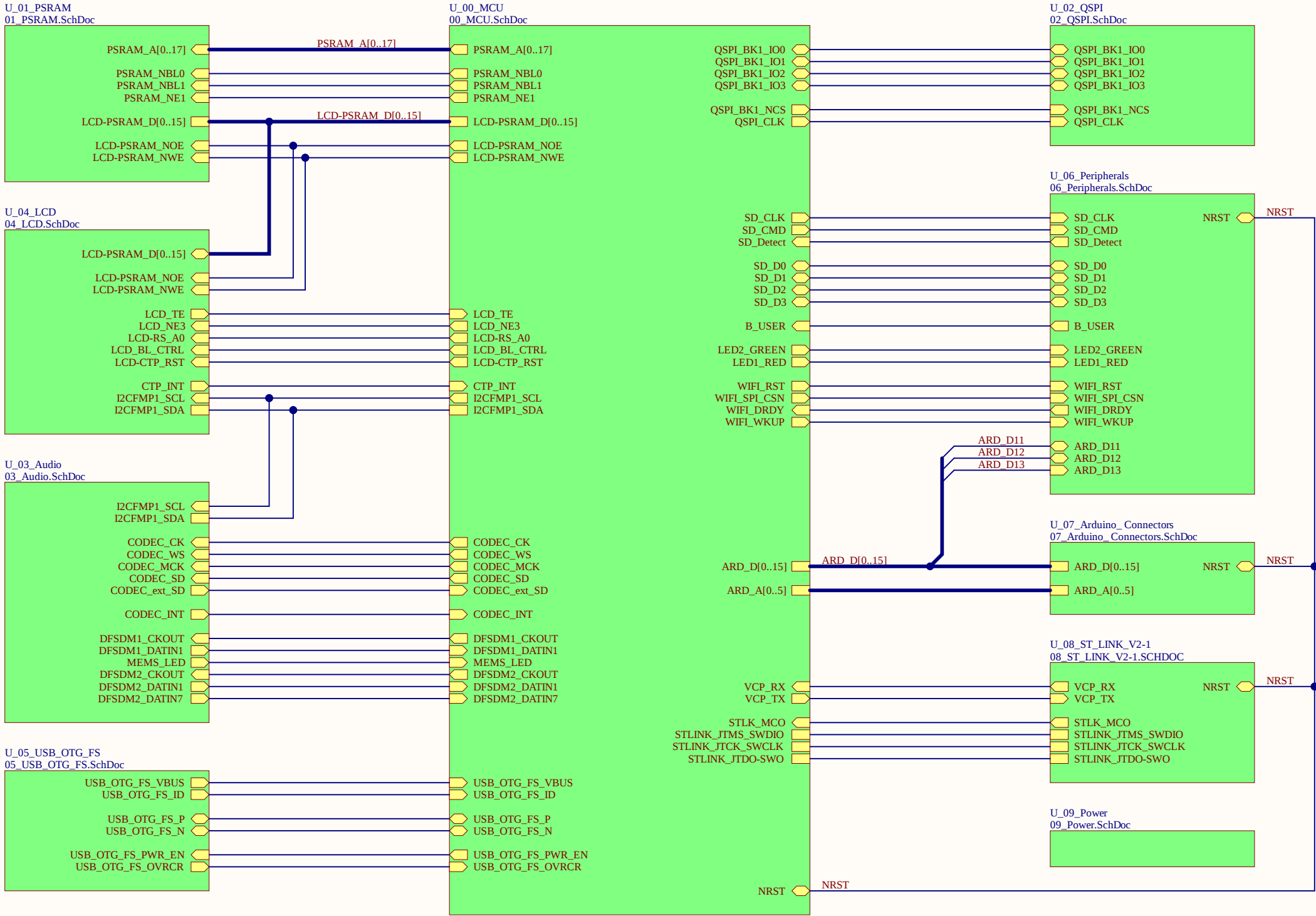
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U_Top
Top.SchDoc



Title: Project overview		
Project: STM32F413H-DISCO		
Variant: F413ZHT6		
Revision: E-01		Reference: MB1274
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HW PART

HW17

BOARD REF

mb1274E-01 2yyywxxxxx

HW18

HW1

PCB

STM32F413H-DISCO PCB 4L

HW2

BLISTER

STM32F413H-DISCO BLISTER

HW3

BLISTER CARD

STM32F413H-DISCO BLISTER CARD

H3

H1

H2

H4

HW8

Spacer 14mm

HW9

Spacer 14mm

HW10

Spacer 14mm

HW11

Spacer 14mm

HW7

Plastic Screw M3x6mm

HW6

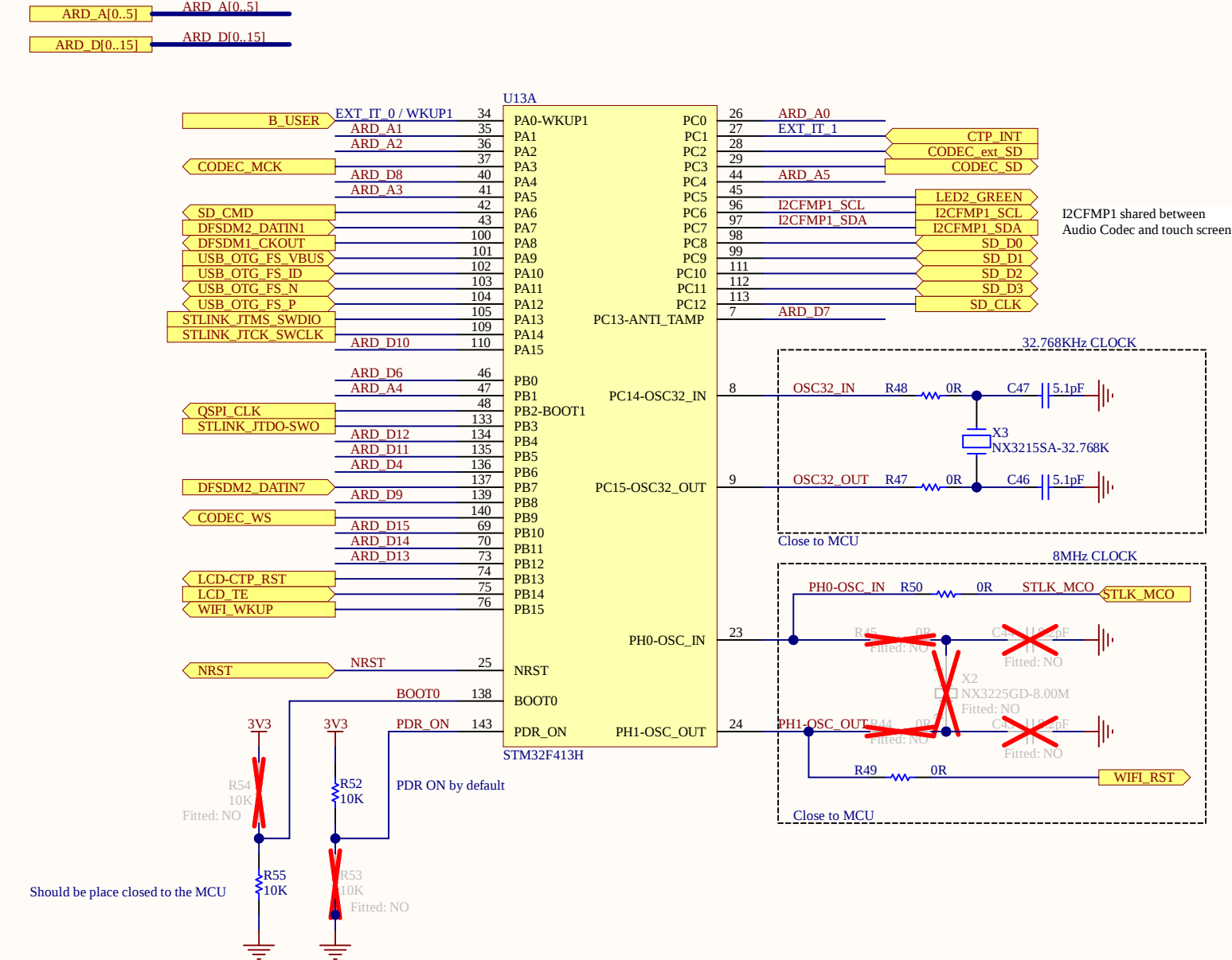
Plastic Screw M3x6mm

HW13

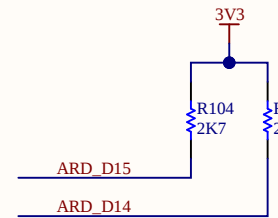
Plastic Screw M3x6mm

HW12

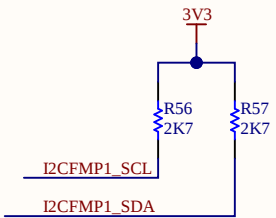
Plastic Screw M3x6mm



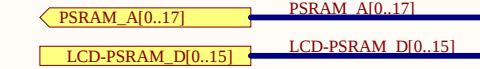
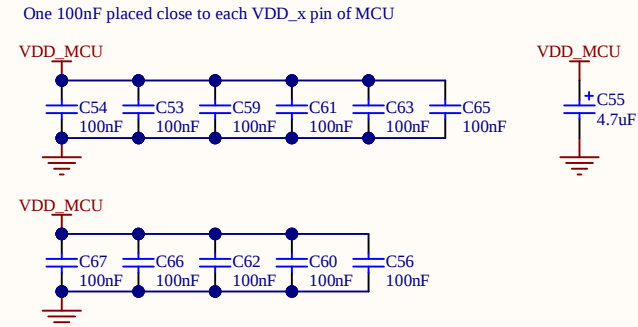
I2C2_PULL-UP



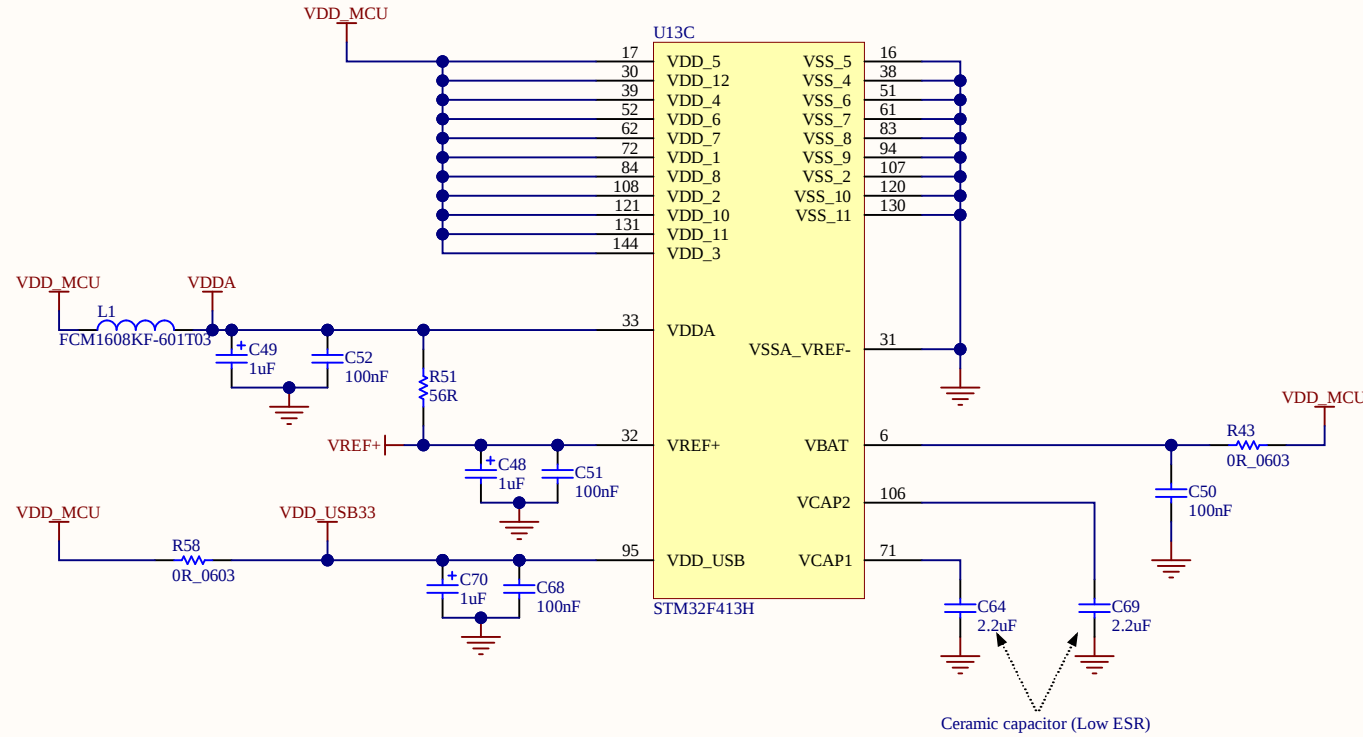
I2CFMP1_PULL-UP



DECOUPLING CAPACITORS

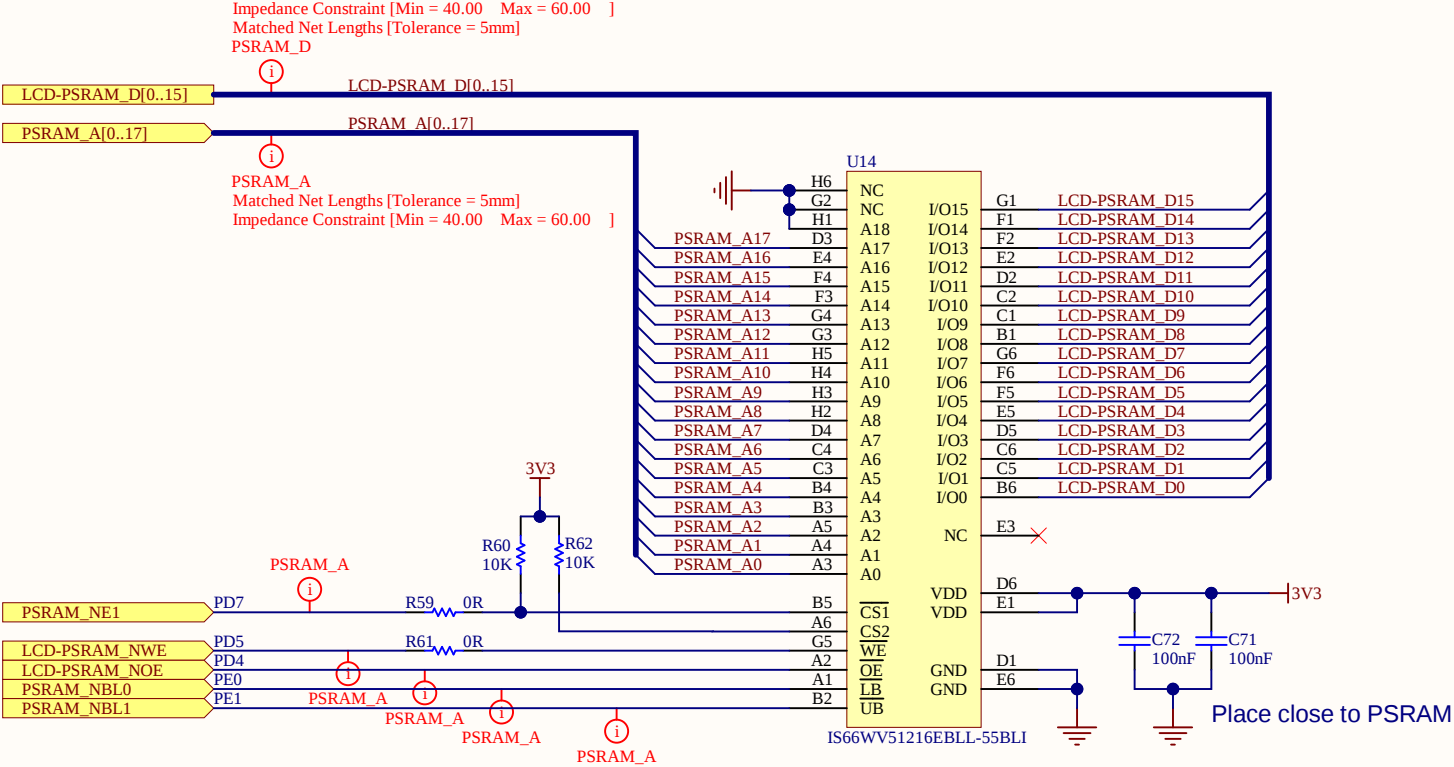


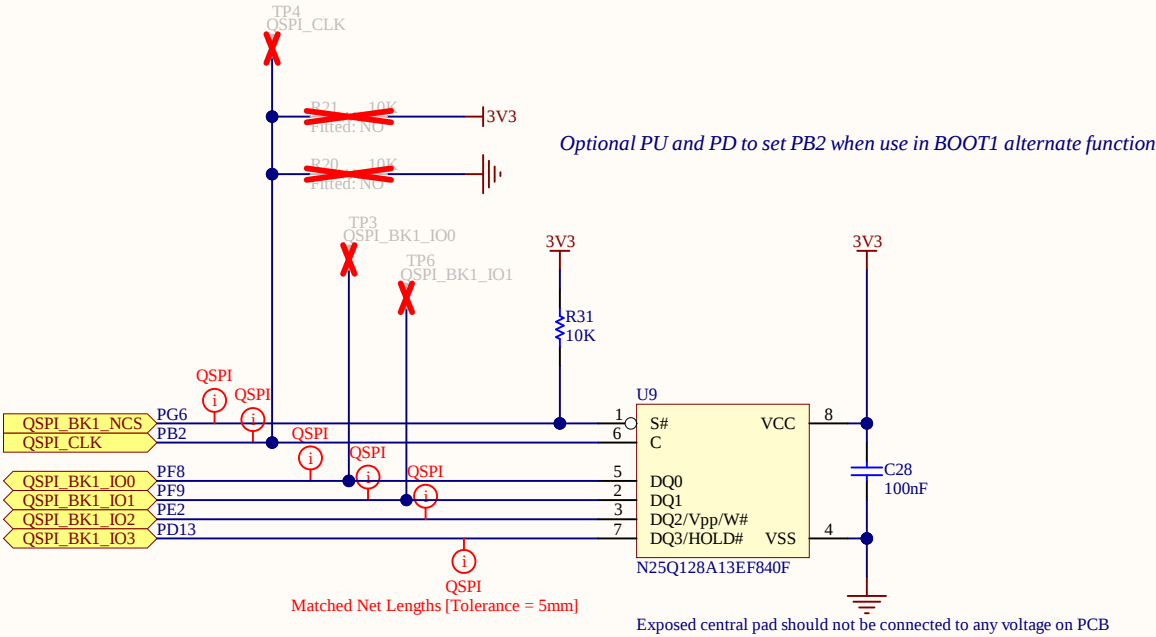
MCU PWR



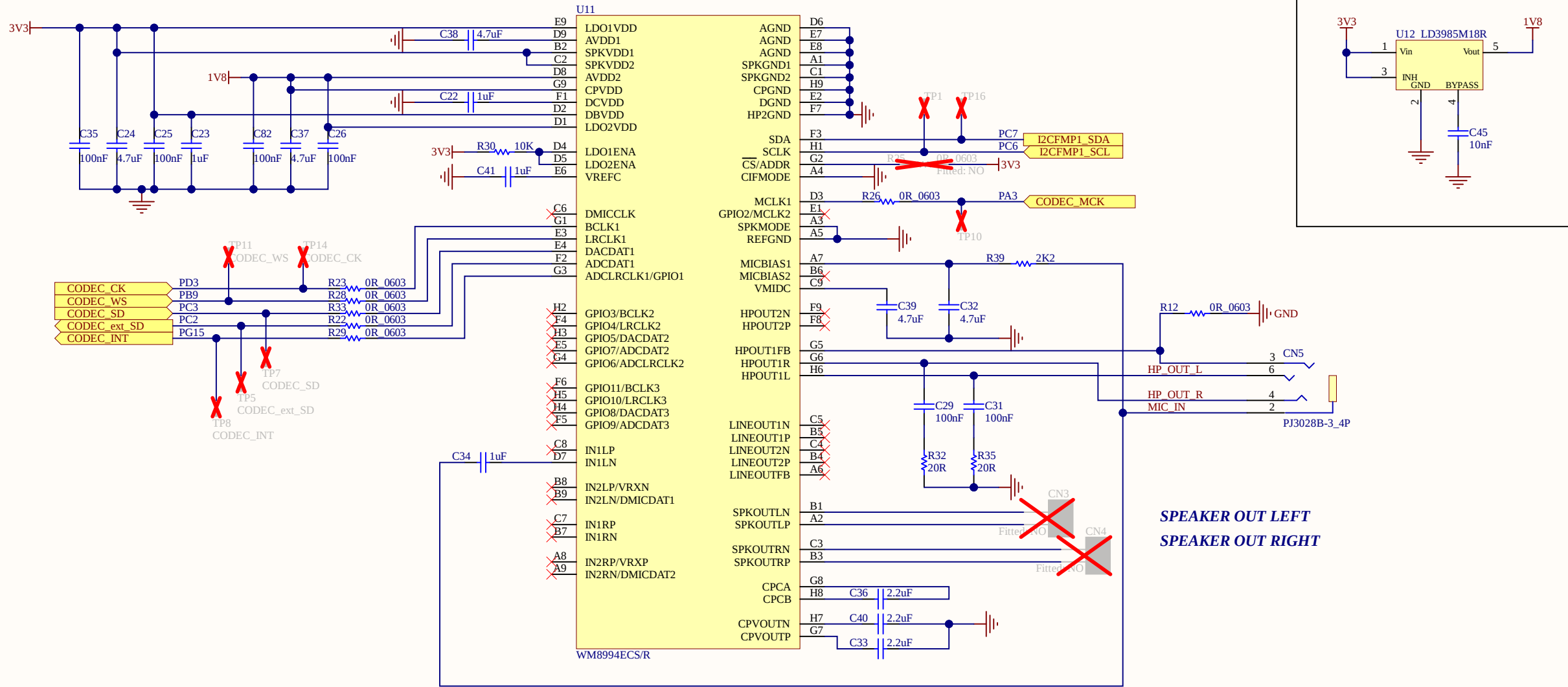
PSRAM

PSRAM Data, NWE & NOE shared with LCD

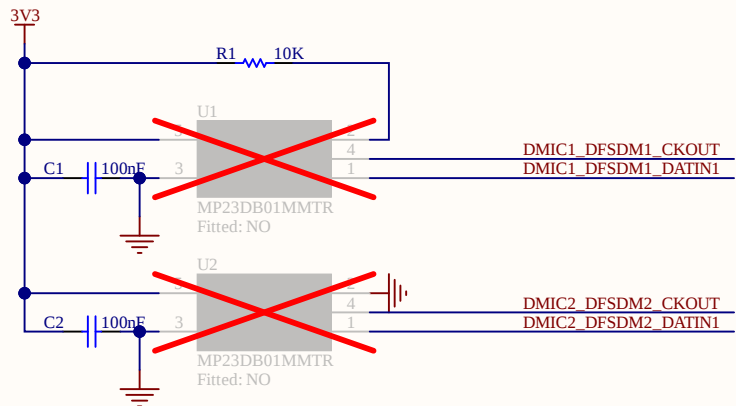




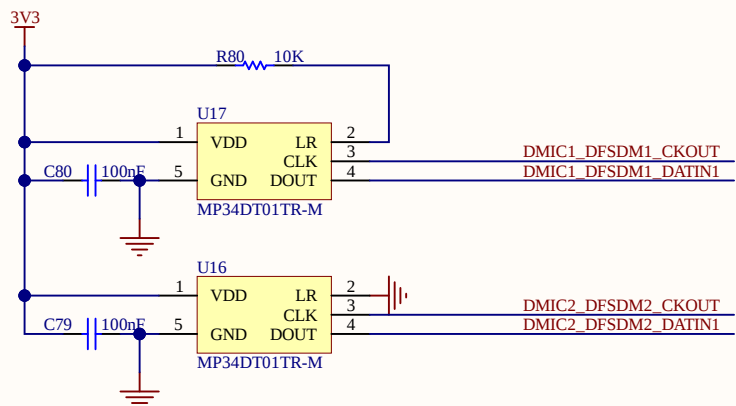
CODEC WOLFSON
WM8994 I2C Address : 0011 0100
Operating range: 1.62<VDD<3.6V



MEMS

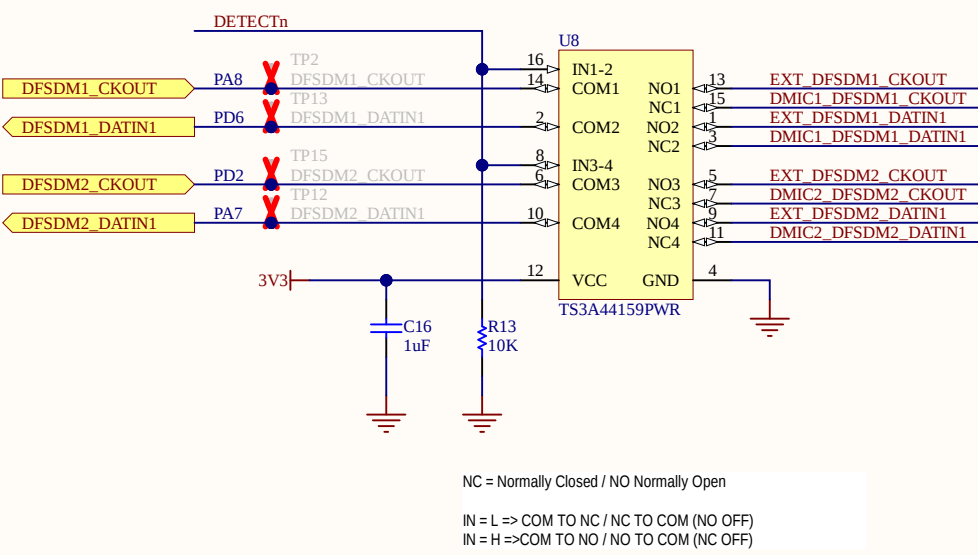


21mm distance between a pair of microphones



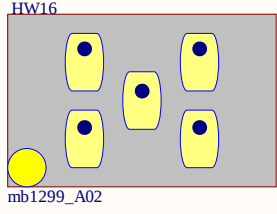
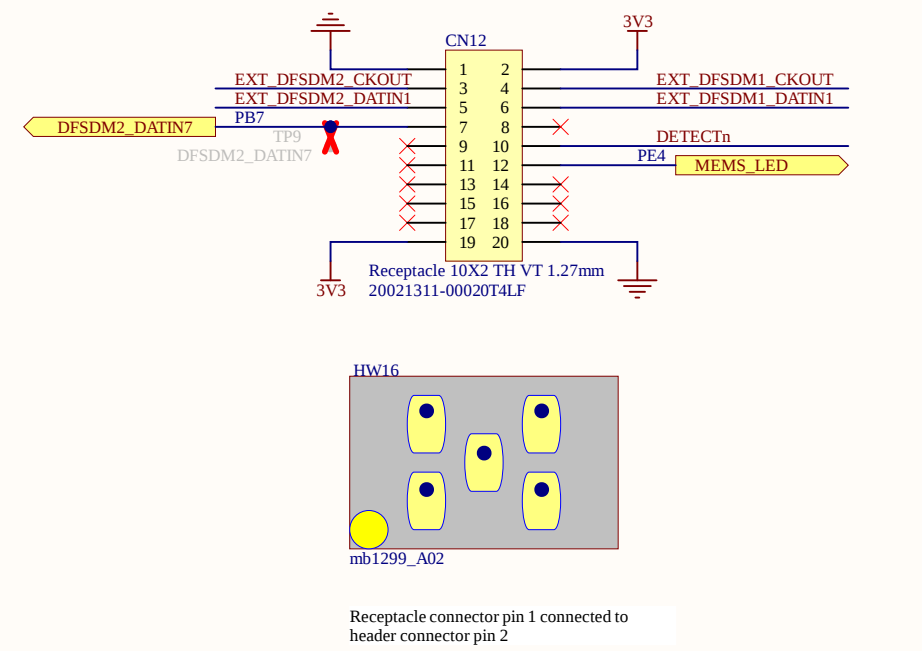
21mm distance between a pair of microphones

Microphone switch



NC = Normally Closed / NO Normally Open
IN = L => COM TO NC / NC TO COM (NO OFF)
IN = H => COM TO NO / NO TO COM (NC OFF)

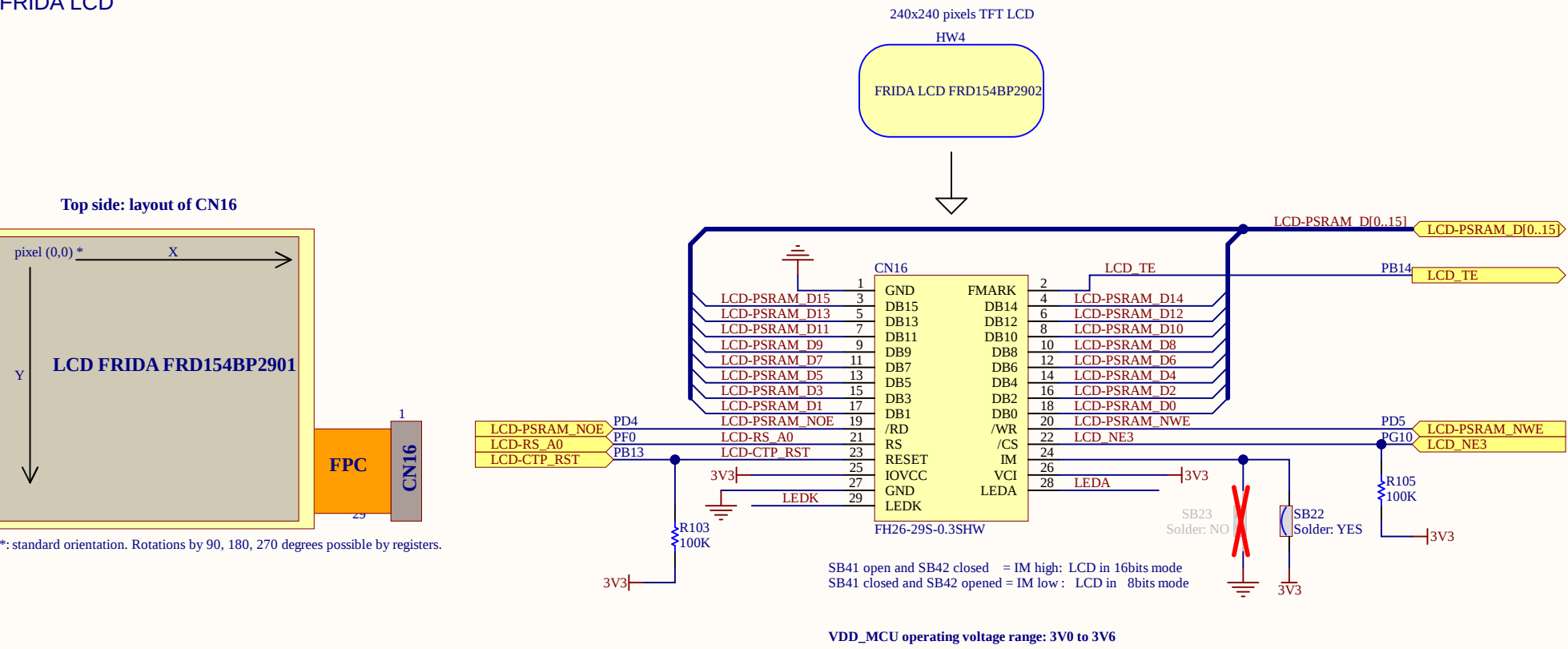
Extension microphones module



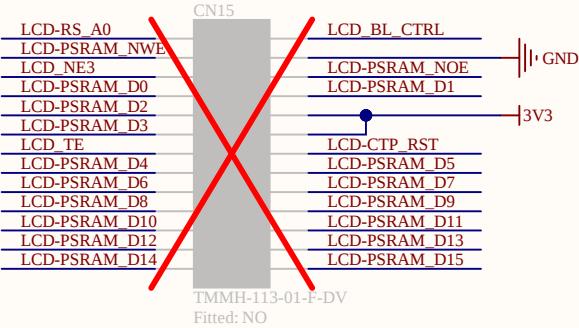
Receptacle connector pin 1 connected to header connector pin 2



FRIDA LCD

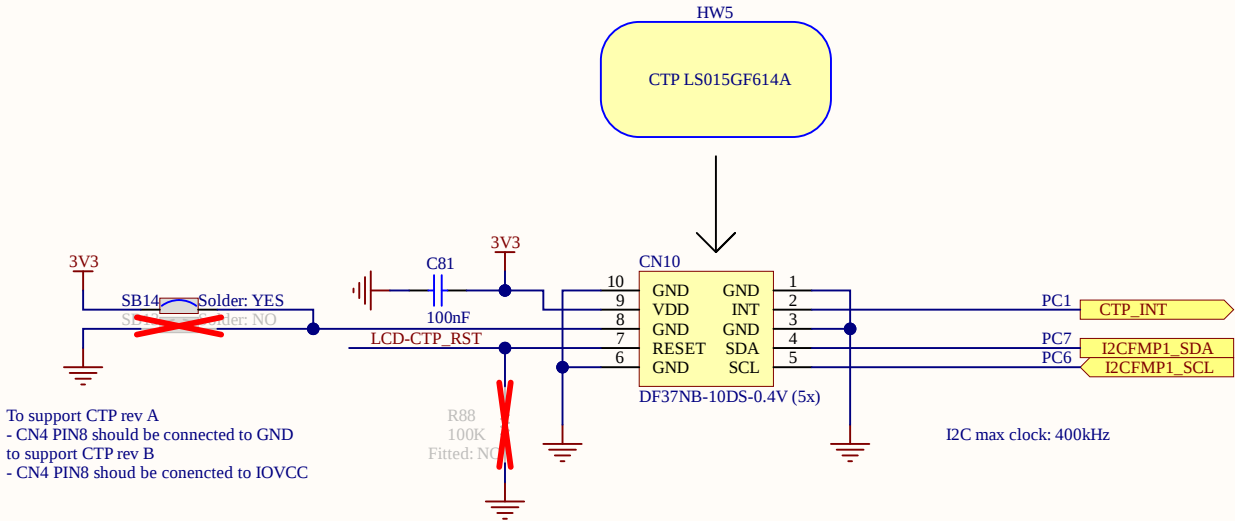


LCD signals access (2mm pitch)

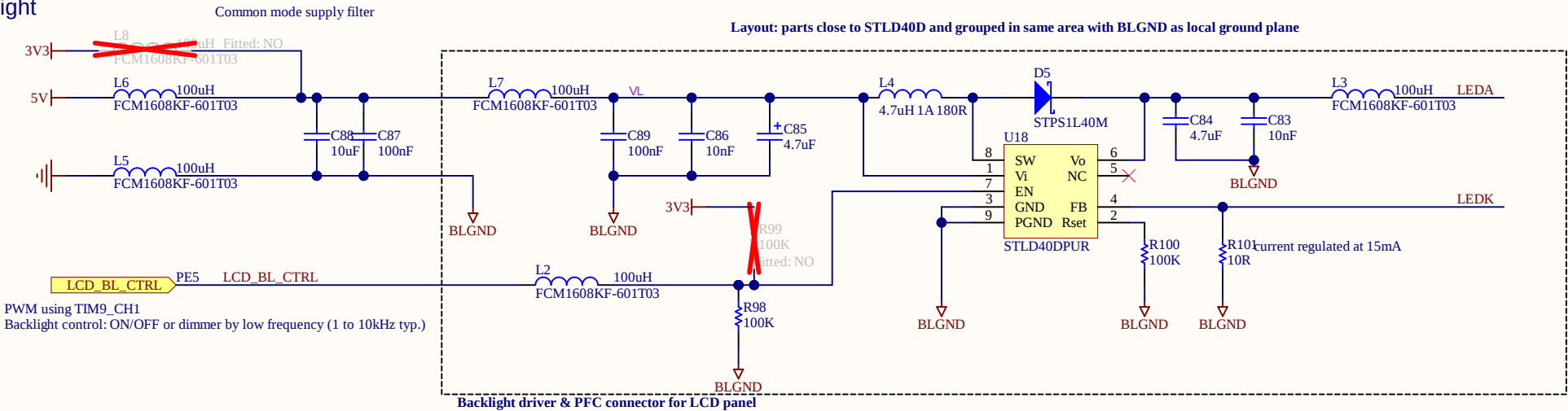


Capacitive Touch Panel

LCD RST and CTP RST share the same PIO for RST. Active LOW

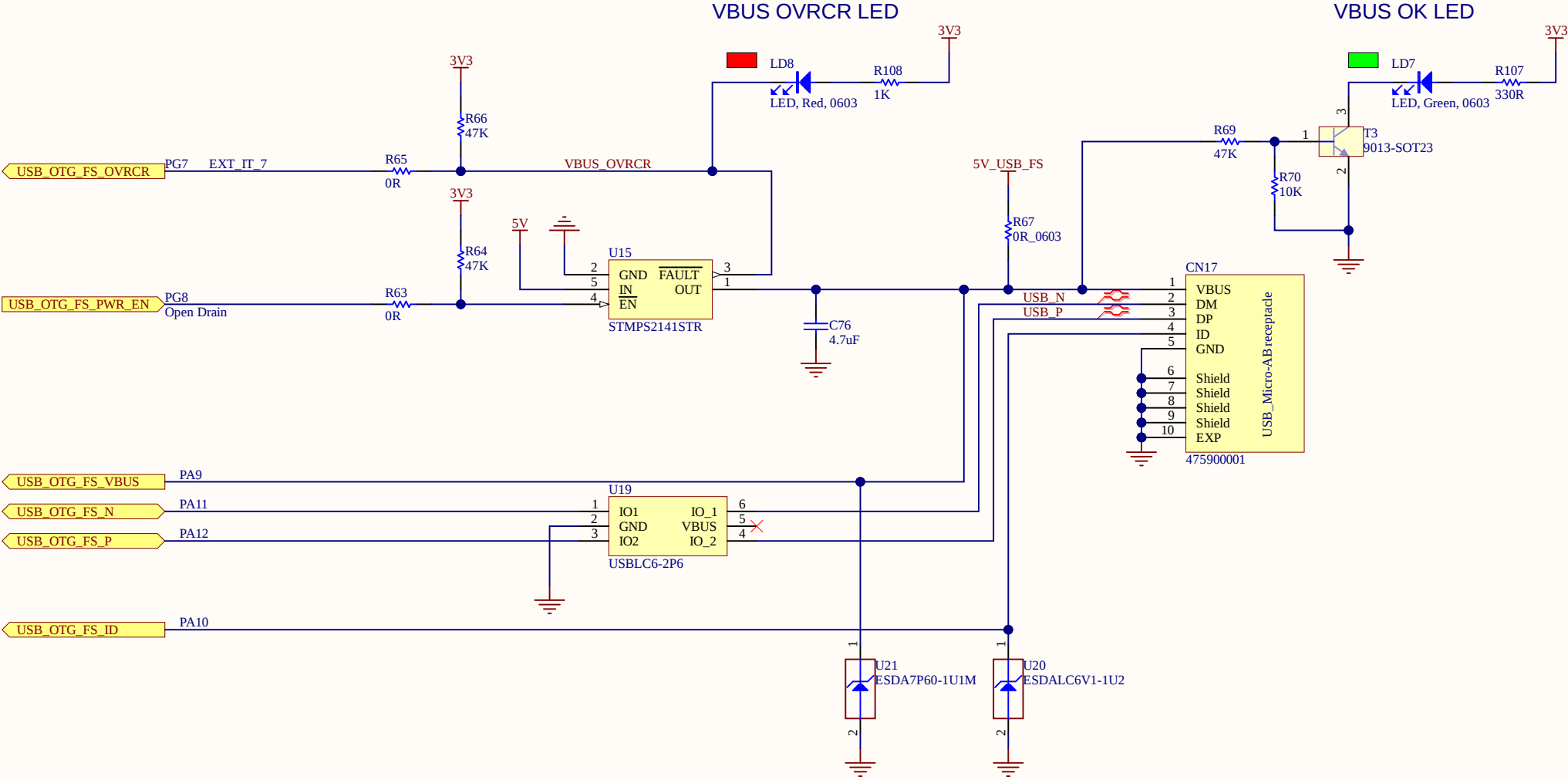


LCD Backlight



USB_OTG_FS

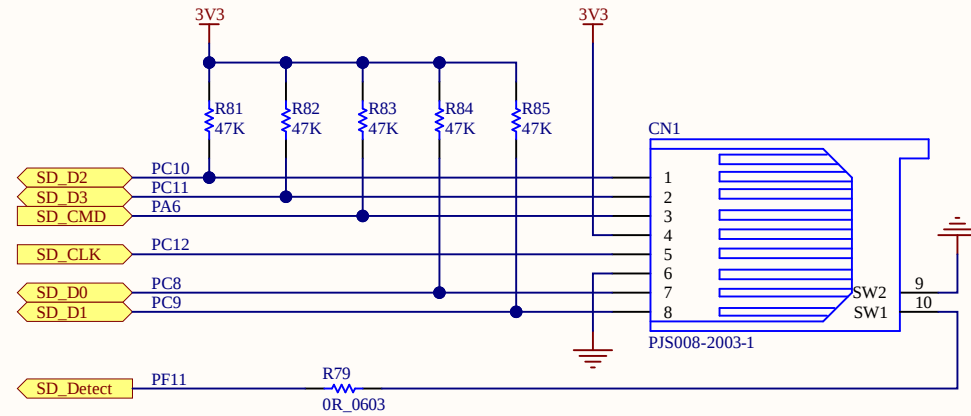
USB Full Speed operating range voltage: 3.0V<VDDUSB<3.6V



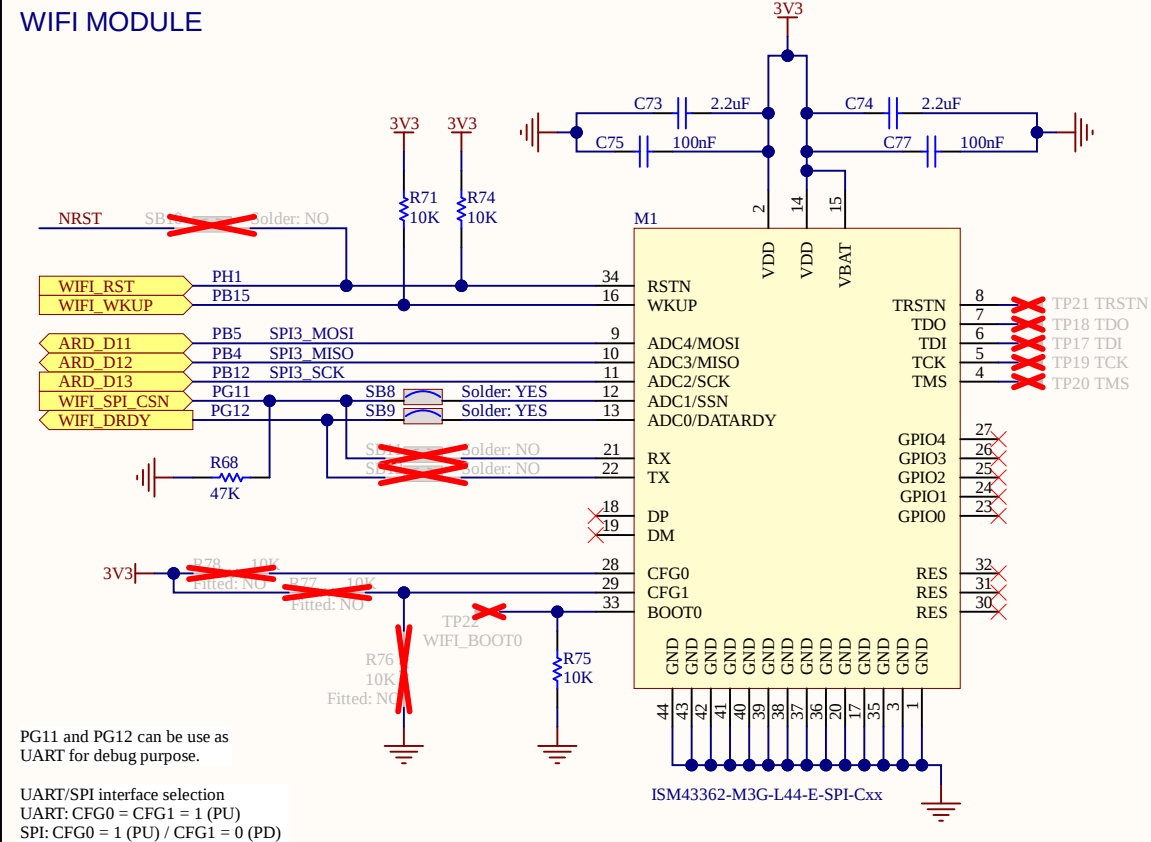
ESD PROTECTION SHOULD BE CLOSE TO THE CONNECTOR



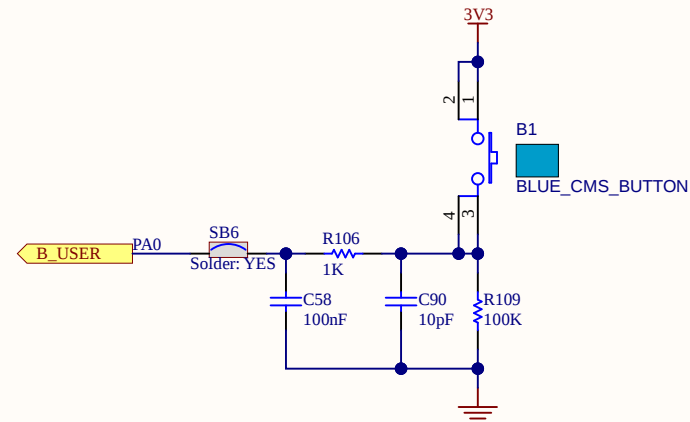
MICRO SD CARD



WIFI MODULE

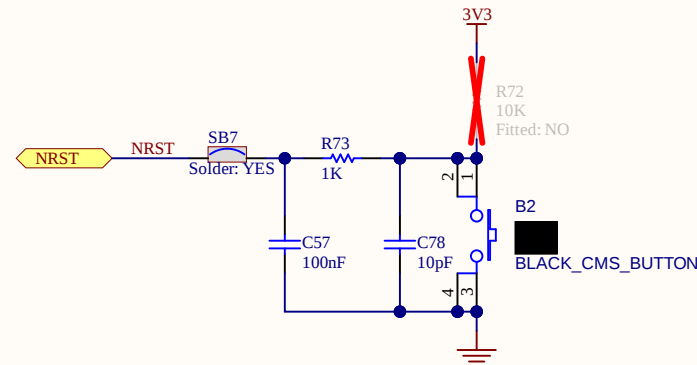


USER WAKE-UP Button



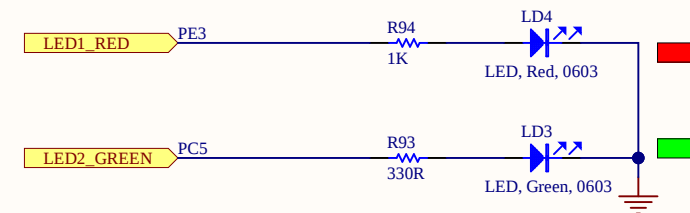
100nF should be place close to the MCU
10pF and 1K should be place close to the button

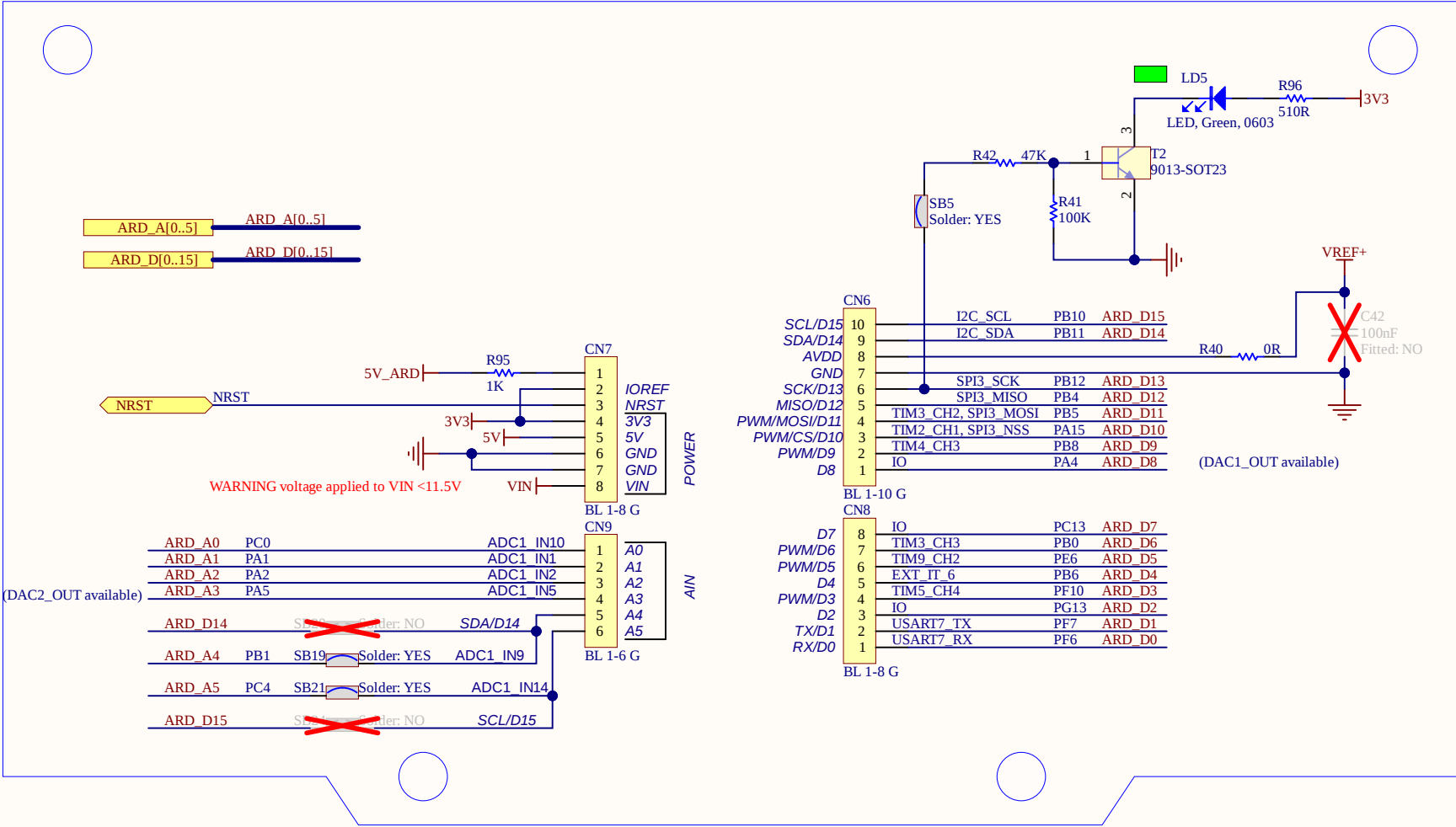
RESET BUTTON



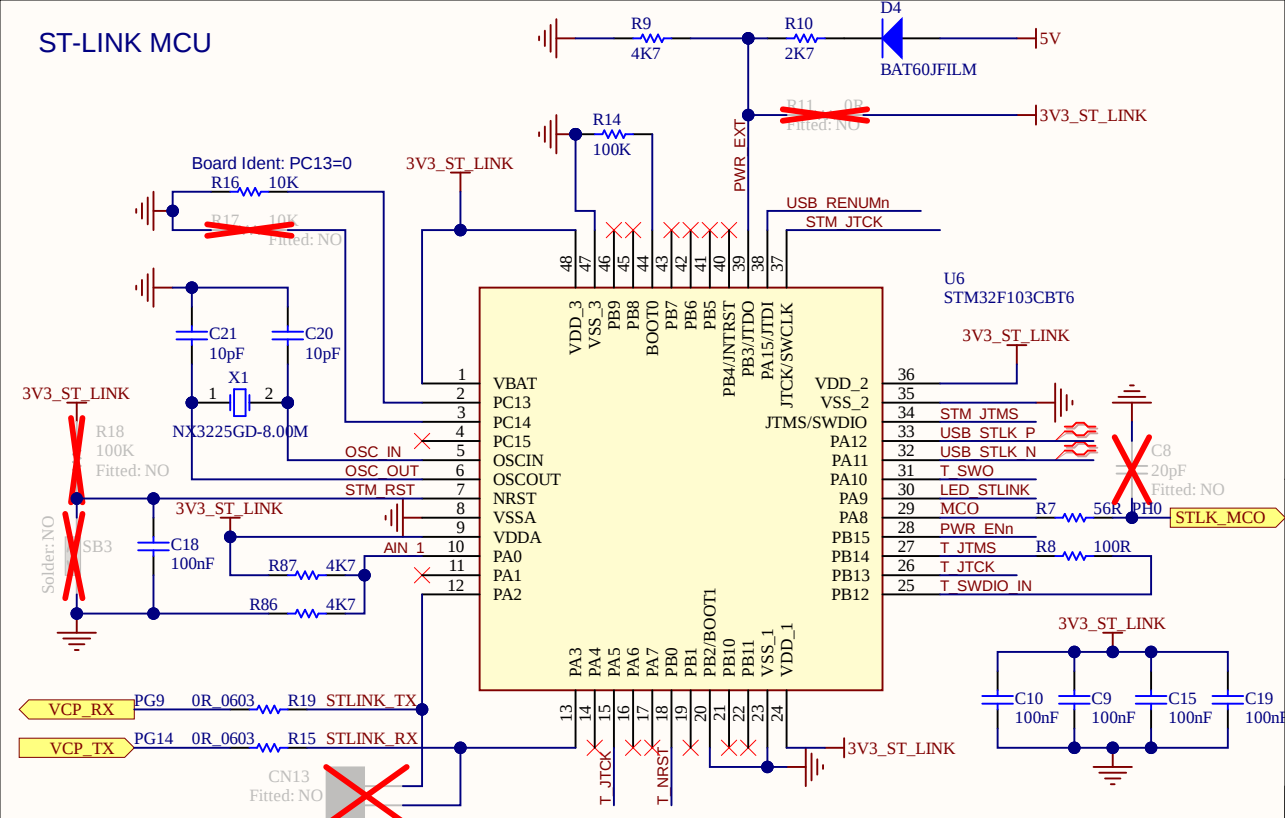
100nF should be place close to the MCU
10pF and 1K should be place close to the button

USER LED
The 2 LEDs are top side

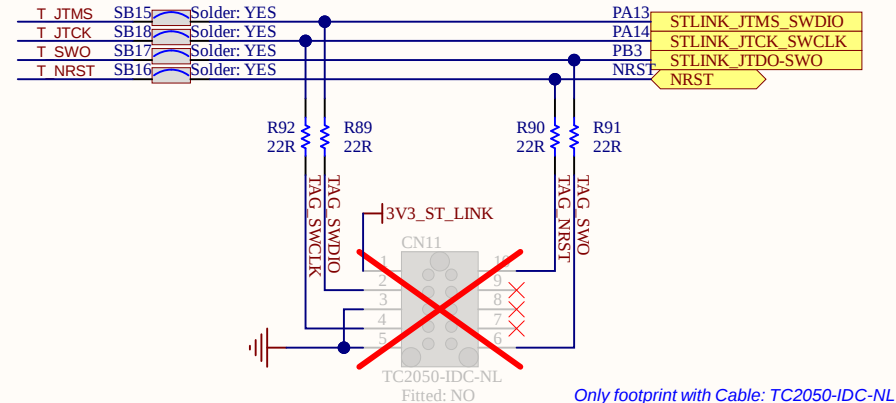




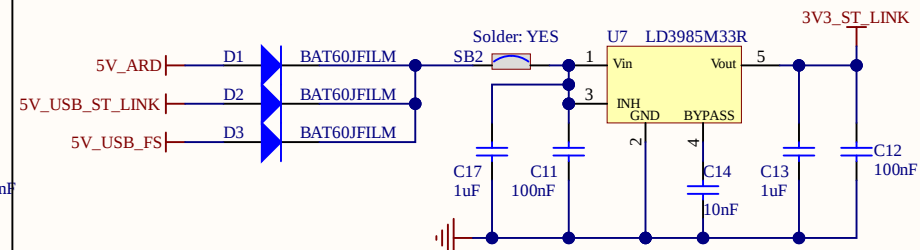
ST-LINK MCU



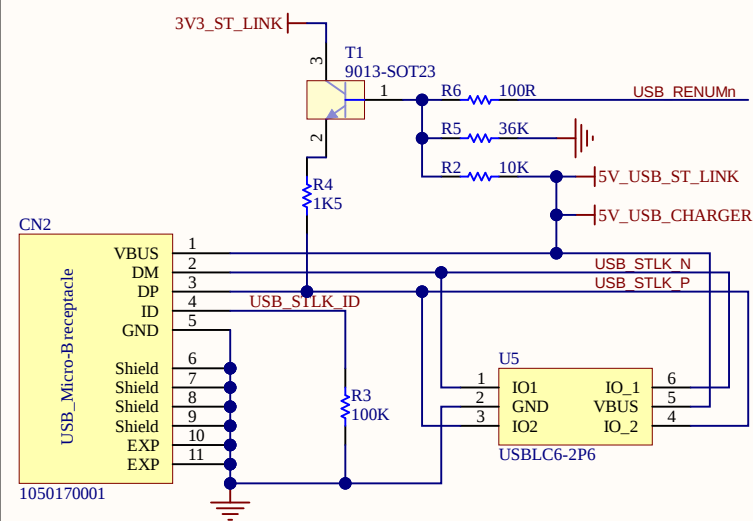
SWD INTERFACE



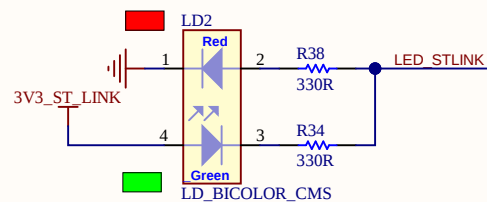
ST-LINK POWER 3V3 / 150mA



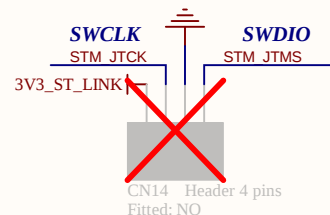
ST-LINK USB CONNECTOR



STLINK_LED

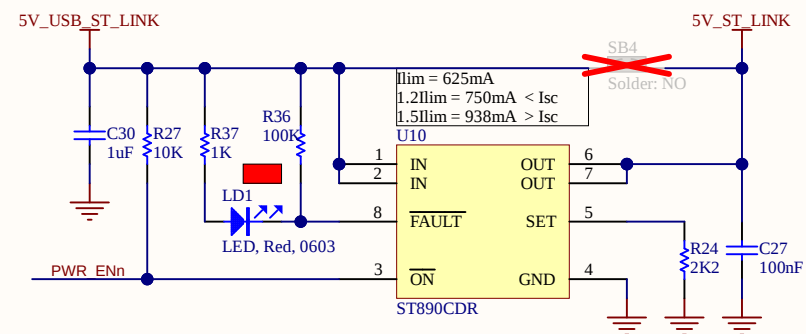


ST-LINK DFU



Must be on a border or the PCB.

ST LINK USB Power switch 5V / 1.2A

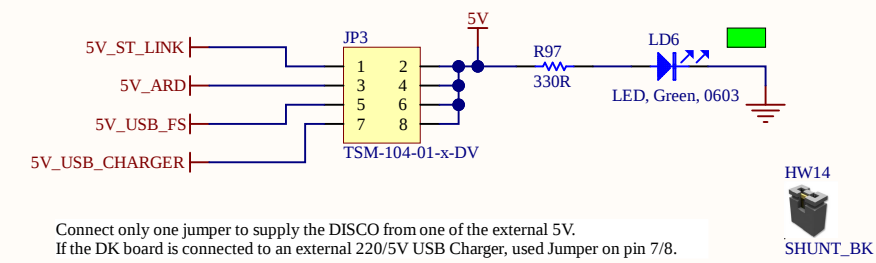


ESD PROTECTION SHOULD BE CLOSE TO THE CONNECTOR

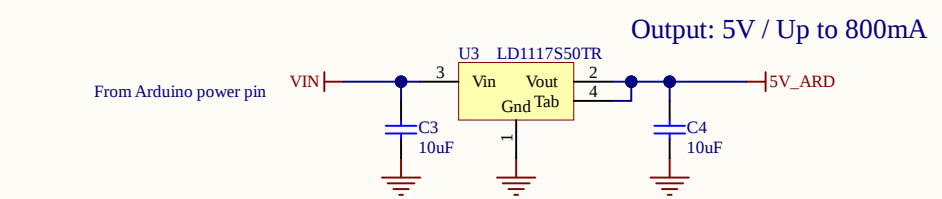
Title: ST-LINK/V2-1 with support of SWD only		
Project: STM32F413H-DISCO		
Variant: F413ZHT6		
Revision: E -01		Reference: MB1274
Size: A4	Date: 10/04/2017	Sheet: 11 of 12



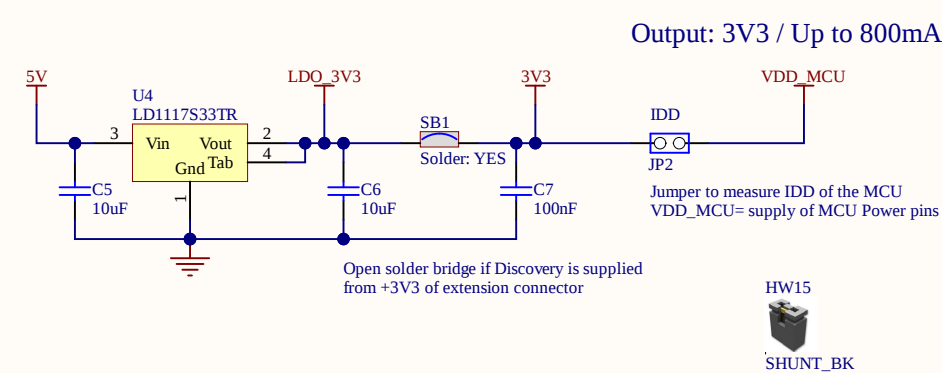
5V PWR SELECTION FROM EXTERNAL SOURCES



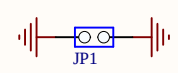
5V PWR FROM ARDUINO (VIN < 11.5V)



3V3 PWR



GND PROBE



PWR TREE

