

STM32G474E-EVAL

MB1397

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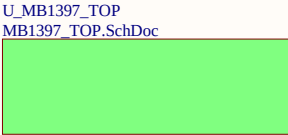
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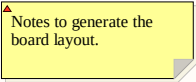


Legend

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

Text to be added to silkscreen.

Warning text.



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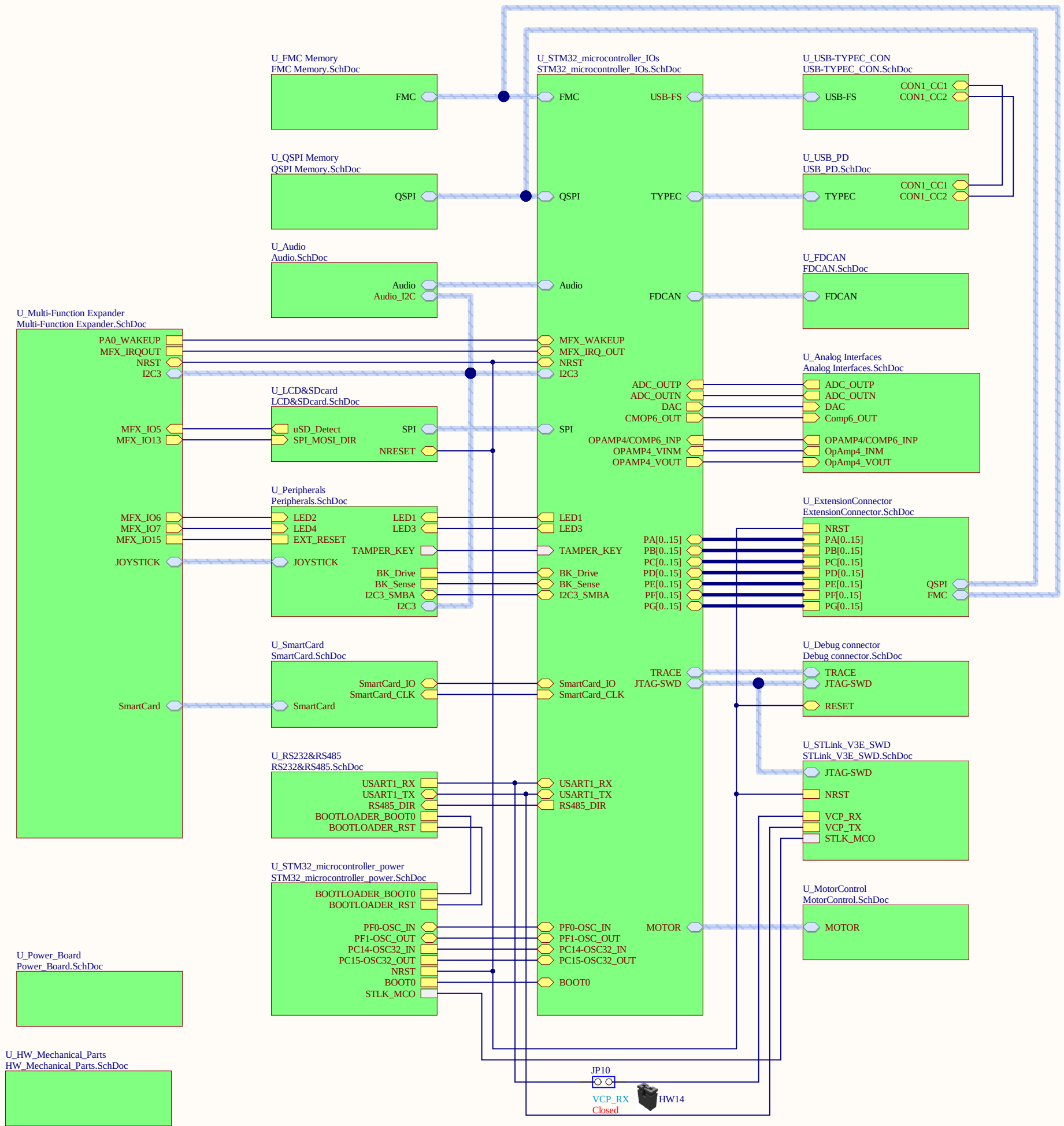
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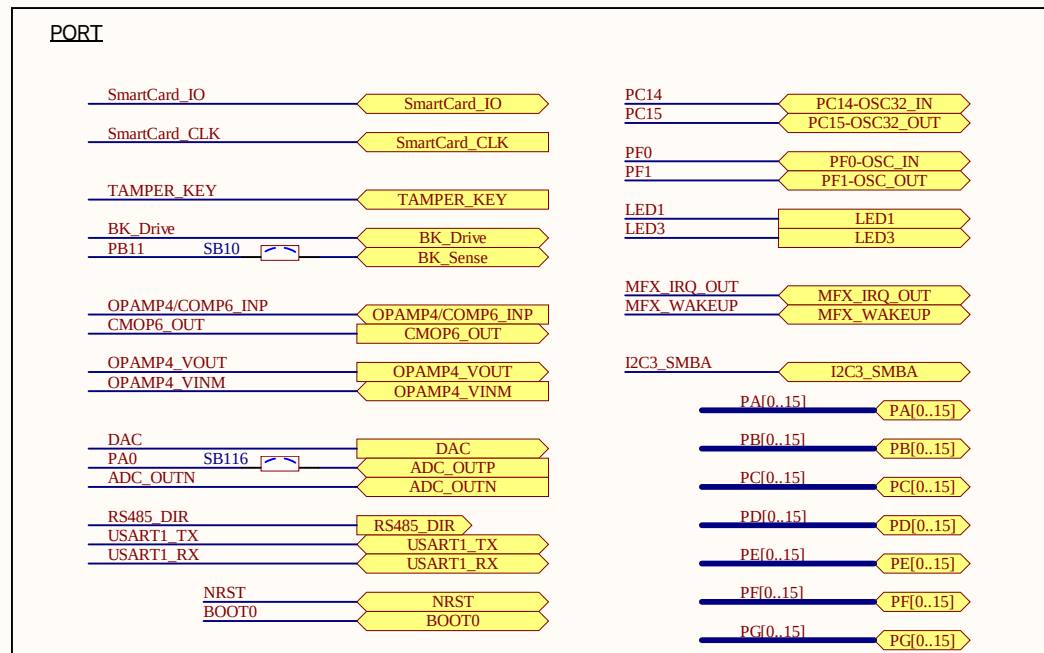
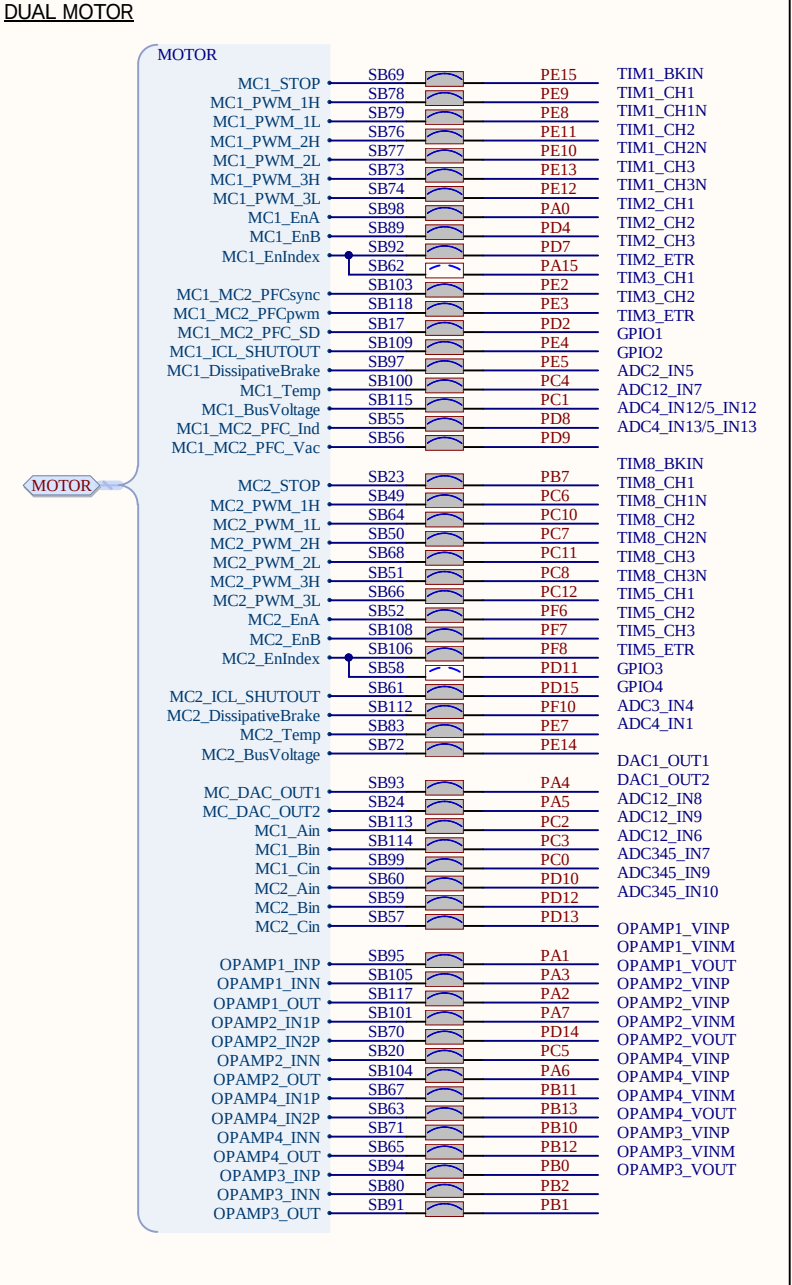
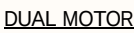
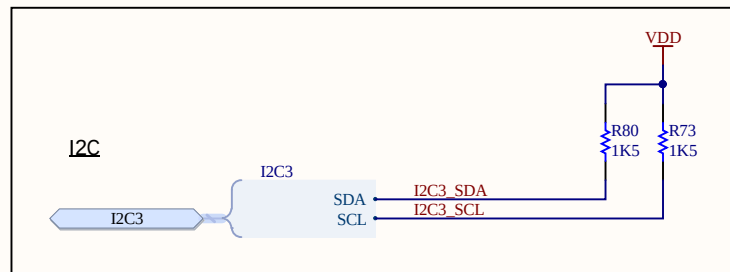
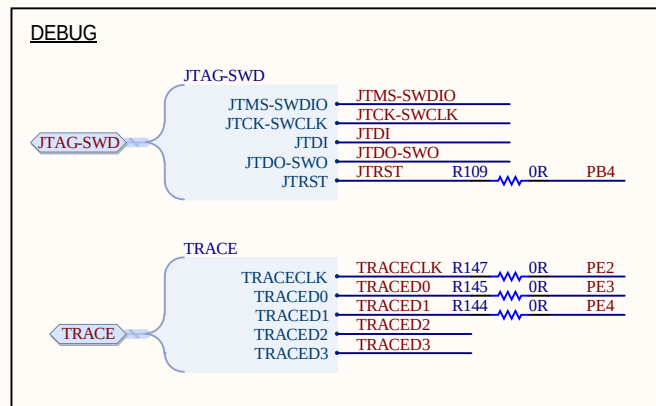
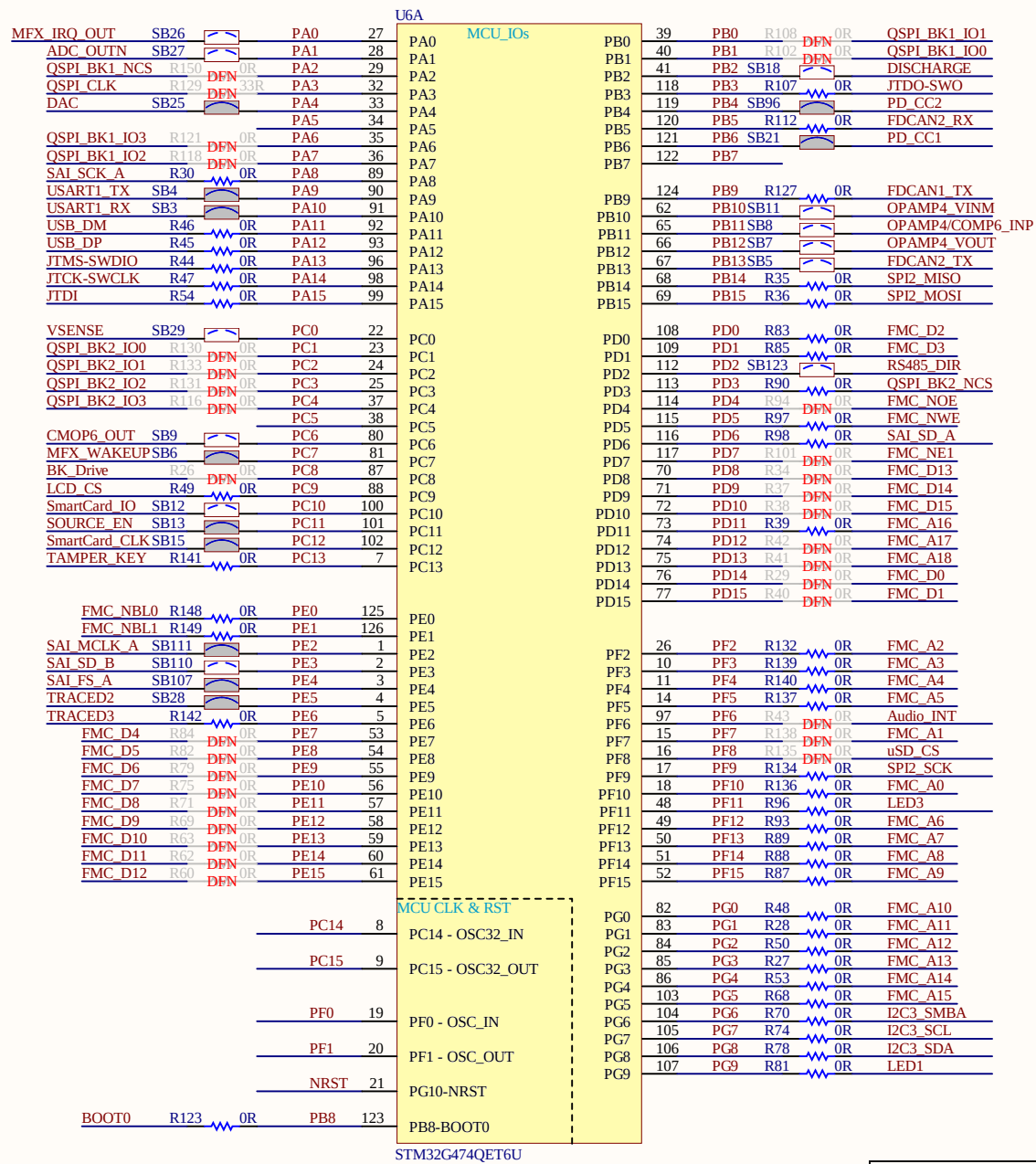
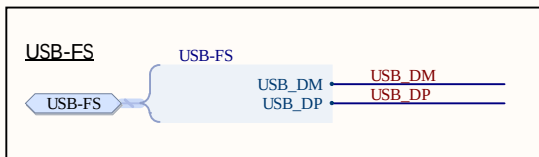
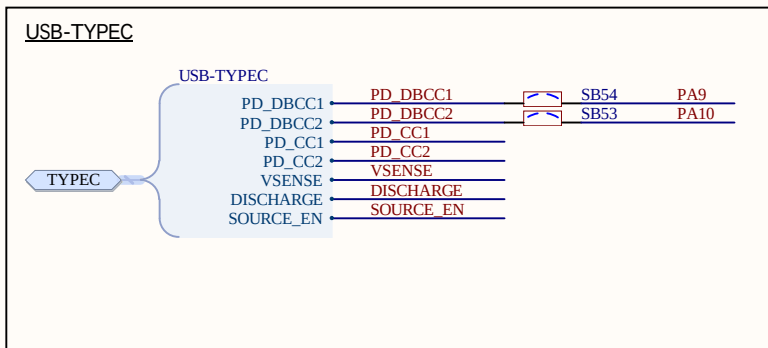
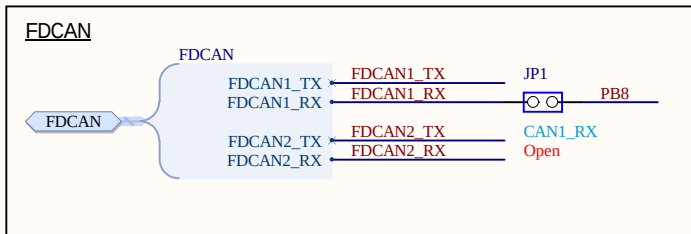
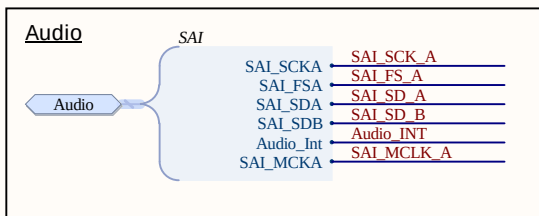
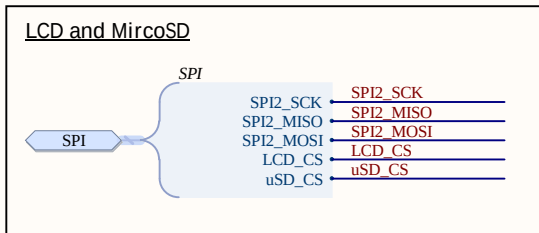
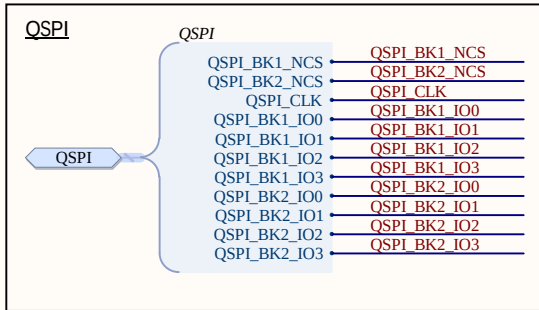
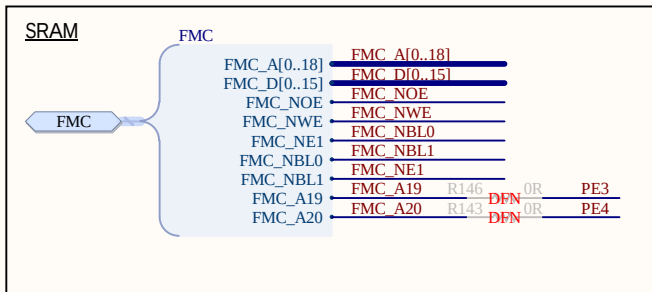
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Title: Project overview		
Project: STM32G474E-EVAL		
Variant: G474EMC		
Revision: B-04	Reference: MB1397	
Size: A4	Date: 01-NOV-18	Sheet: 1 of 22



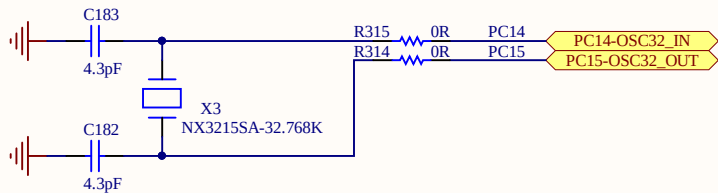


STM32G474QET6 MCU I/Os

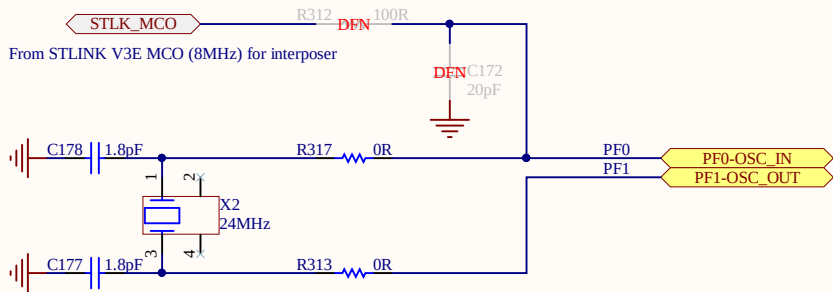


MCU POWER, CLOCK, RESET & BOOT

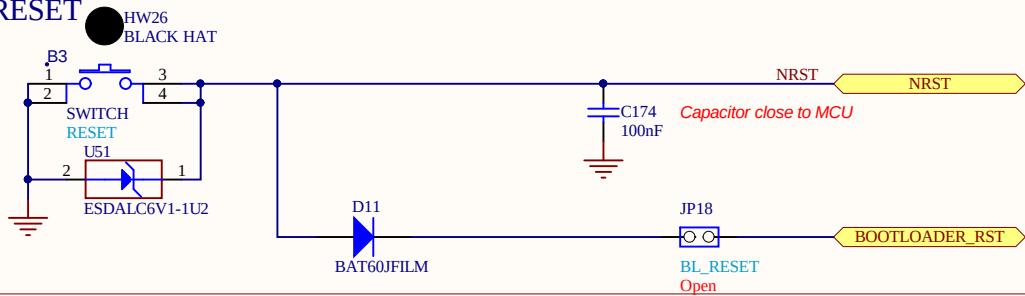
32kHz Clock



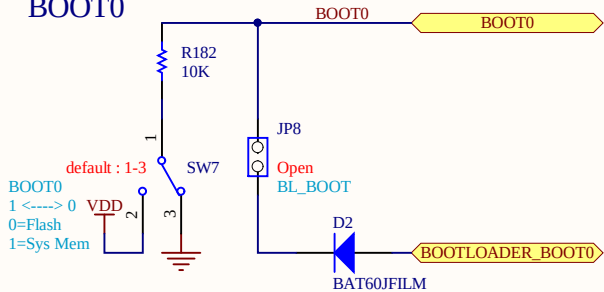
24MHz Clock



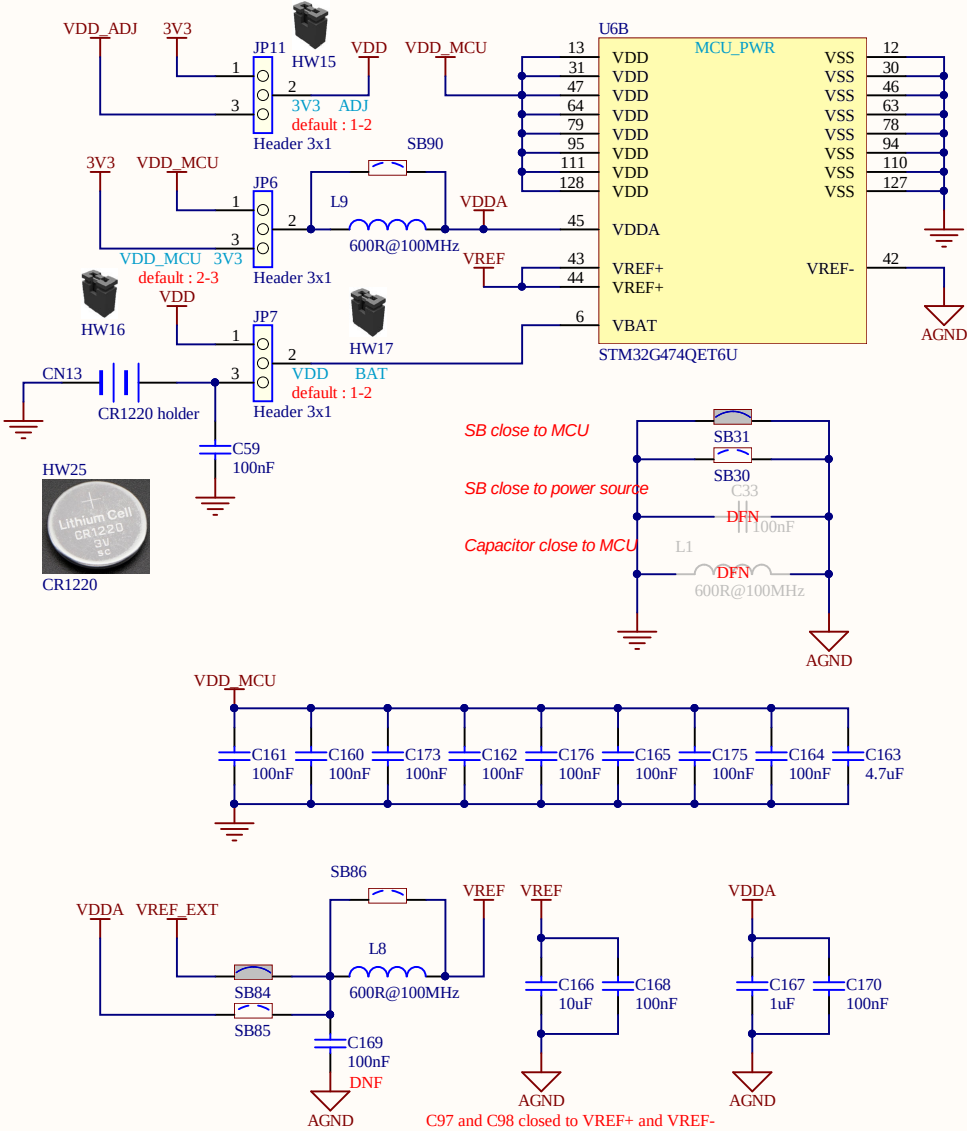
RESET



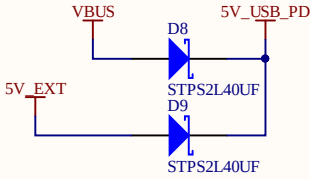
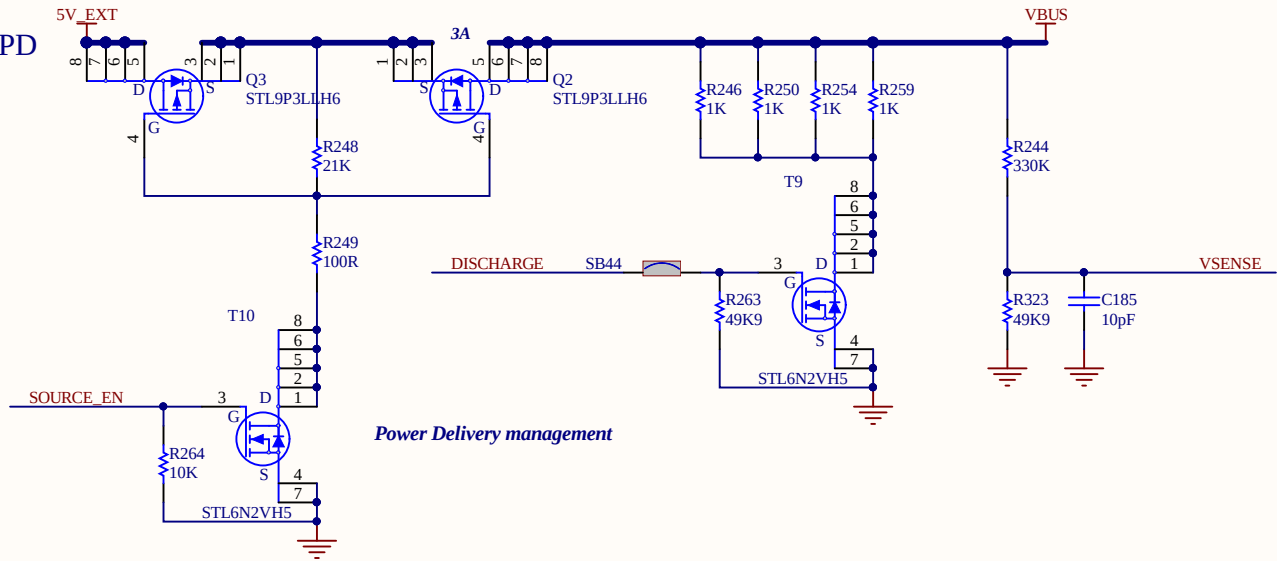
BOOT0



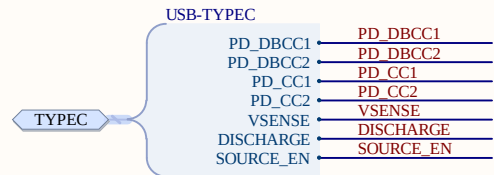
MCU POWER



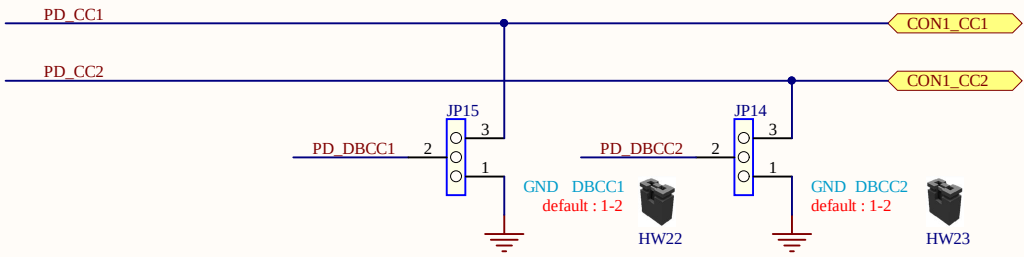
USB PD



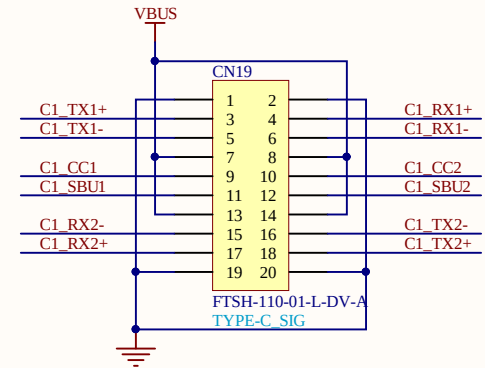
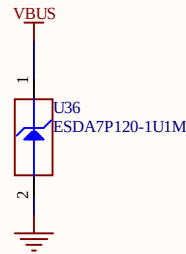
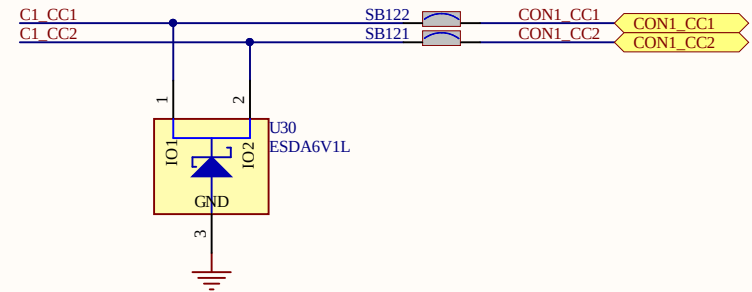
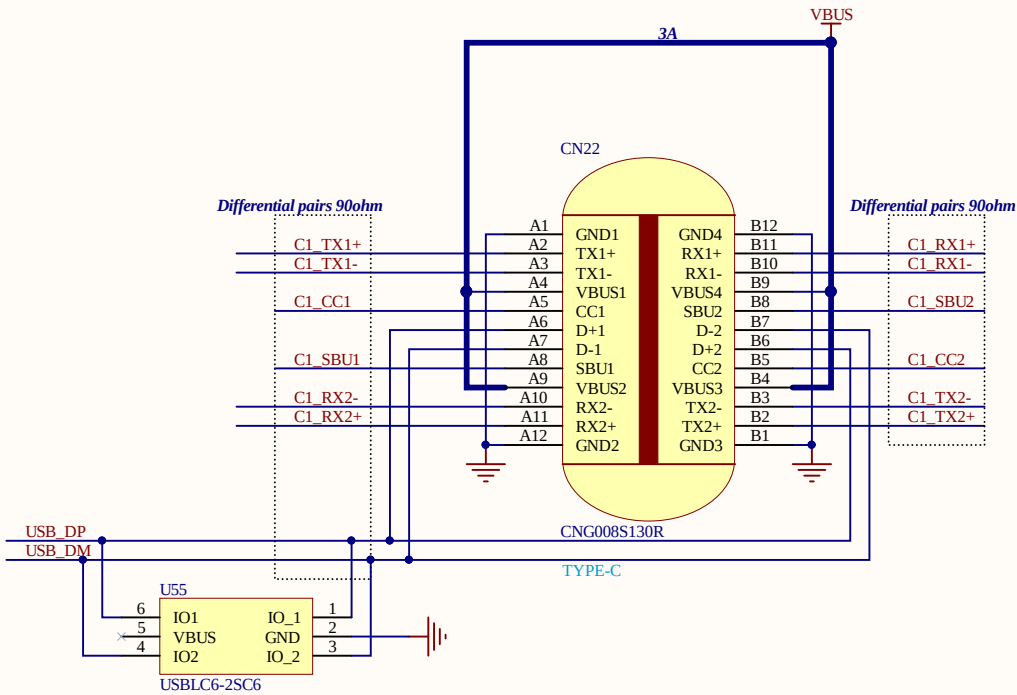
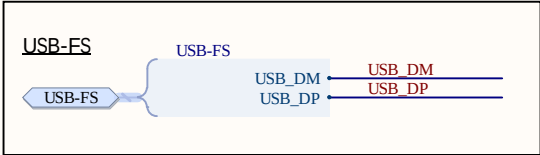
USB-TYPEC



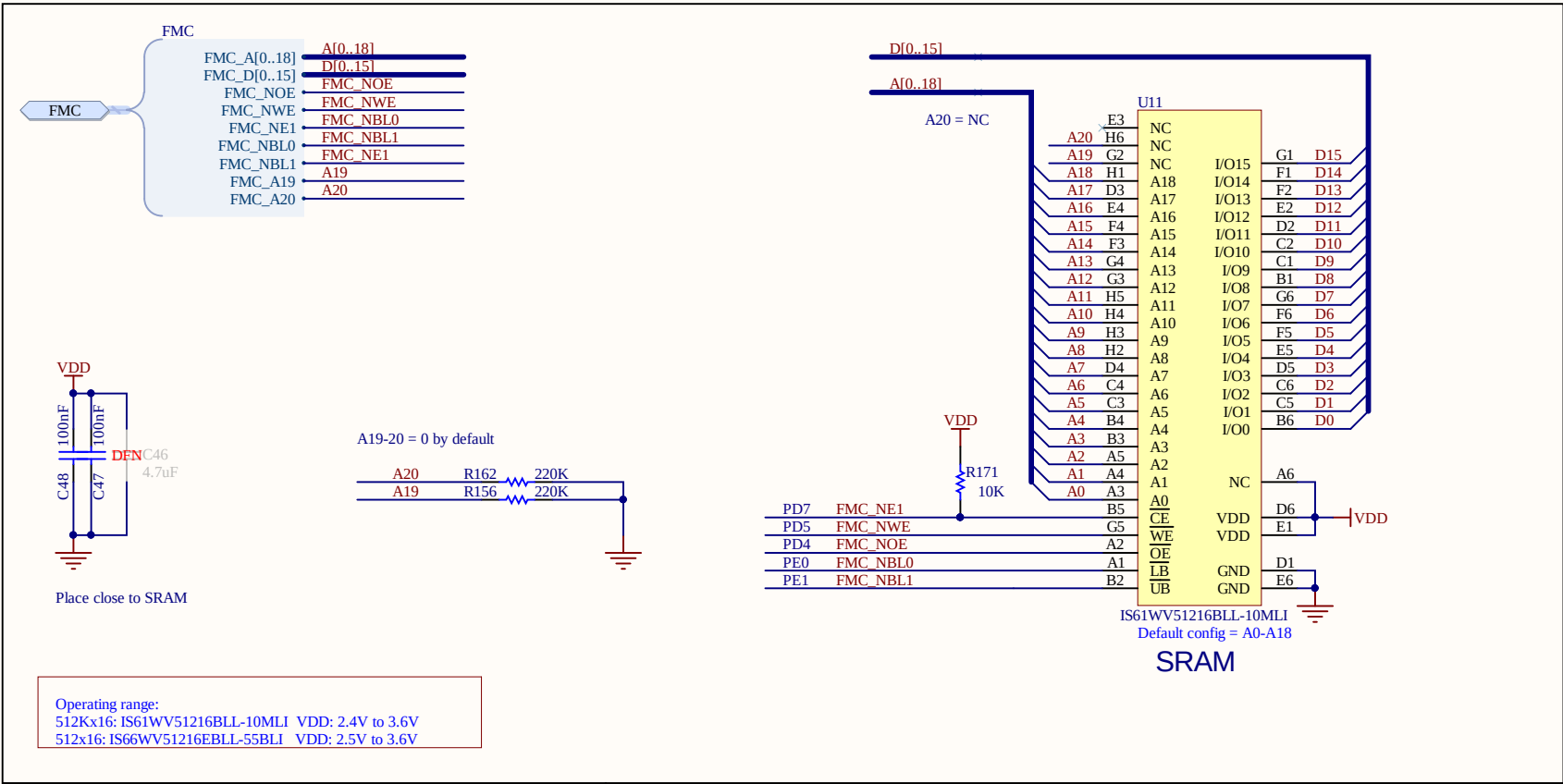
TYPE-C Source port CC management



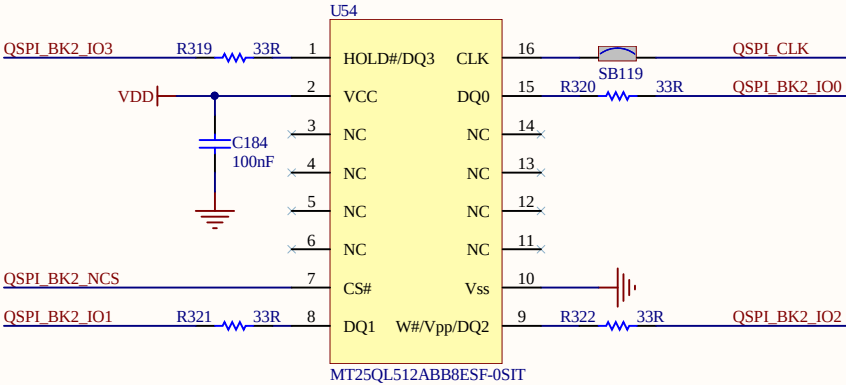
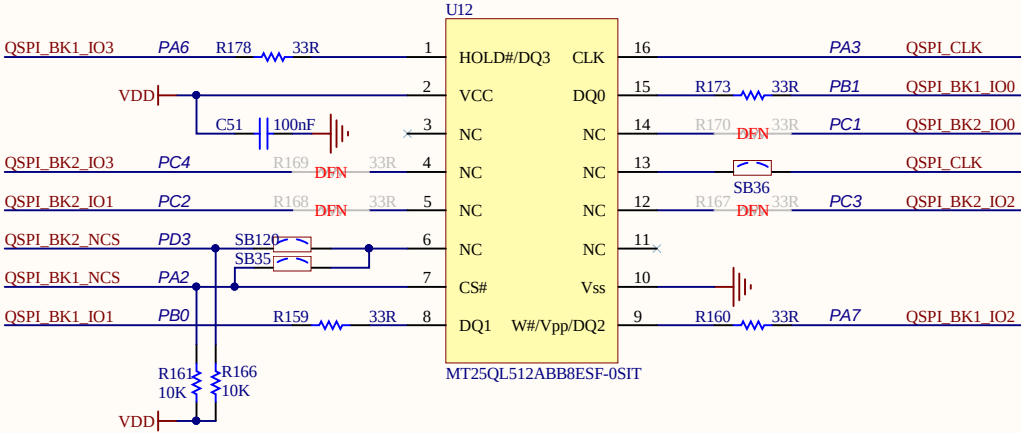
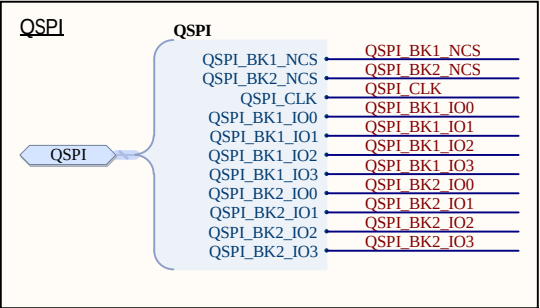
USB-TYPEC CON



MEMORY



QSPI Memory



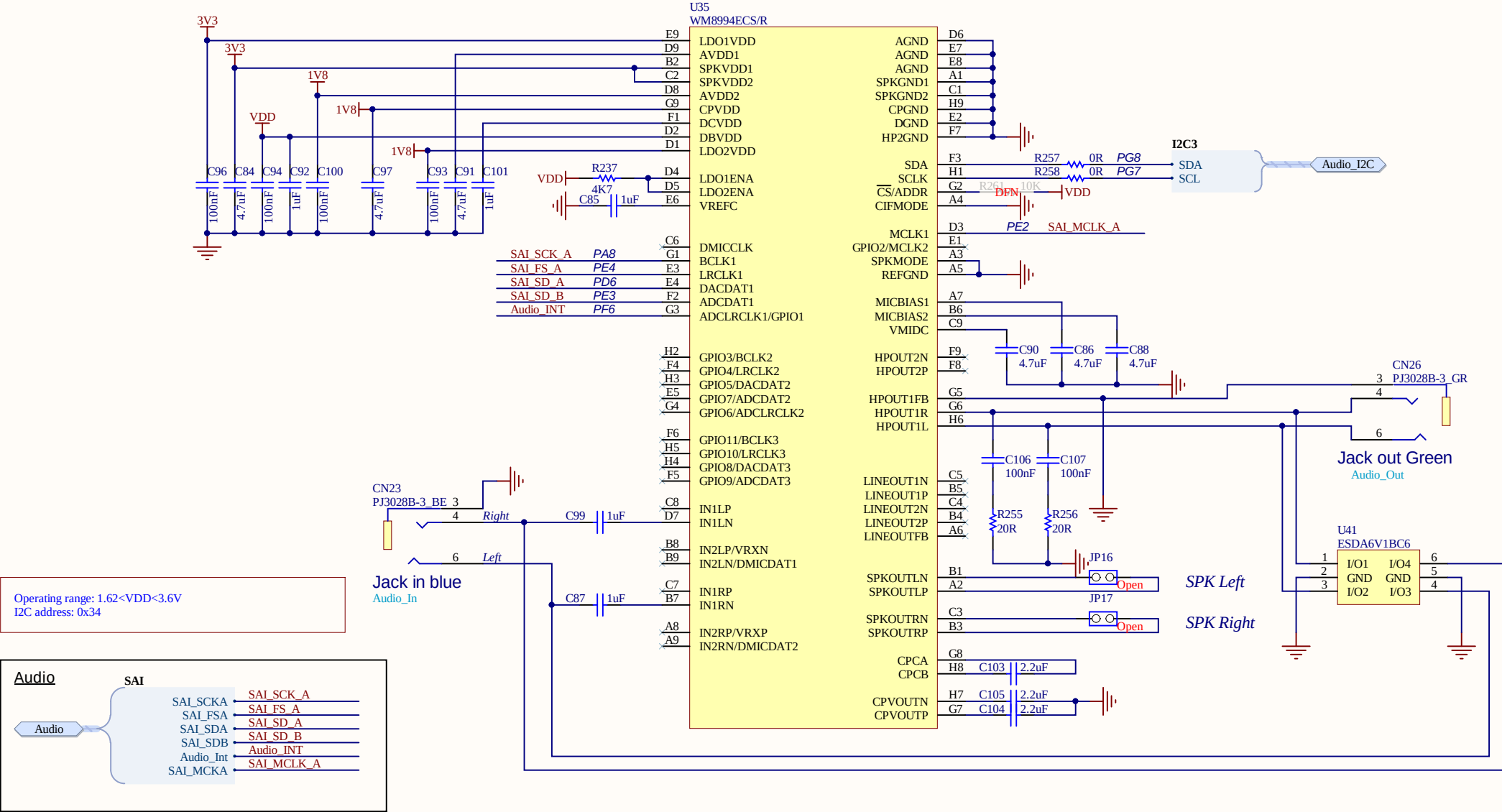
Operating range: 2.7V<VDD<3.6V

Twin Quad SPI Flash solutions:

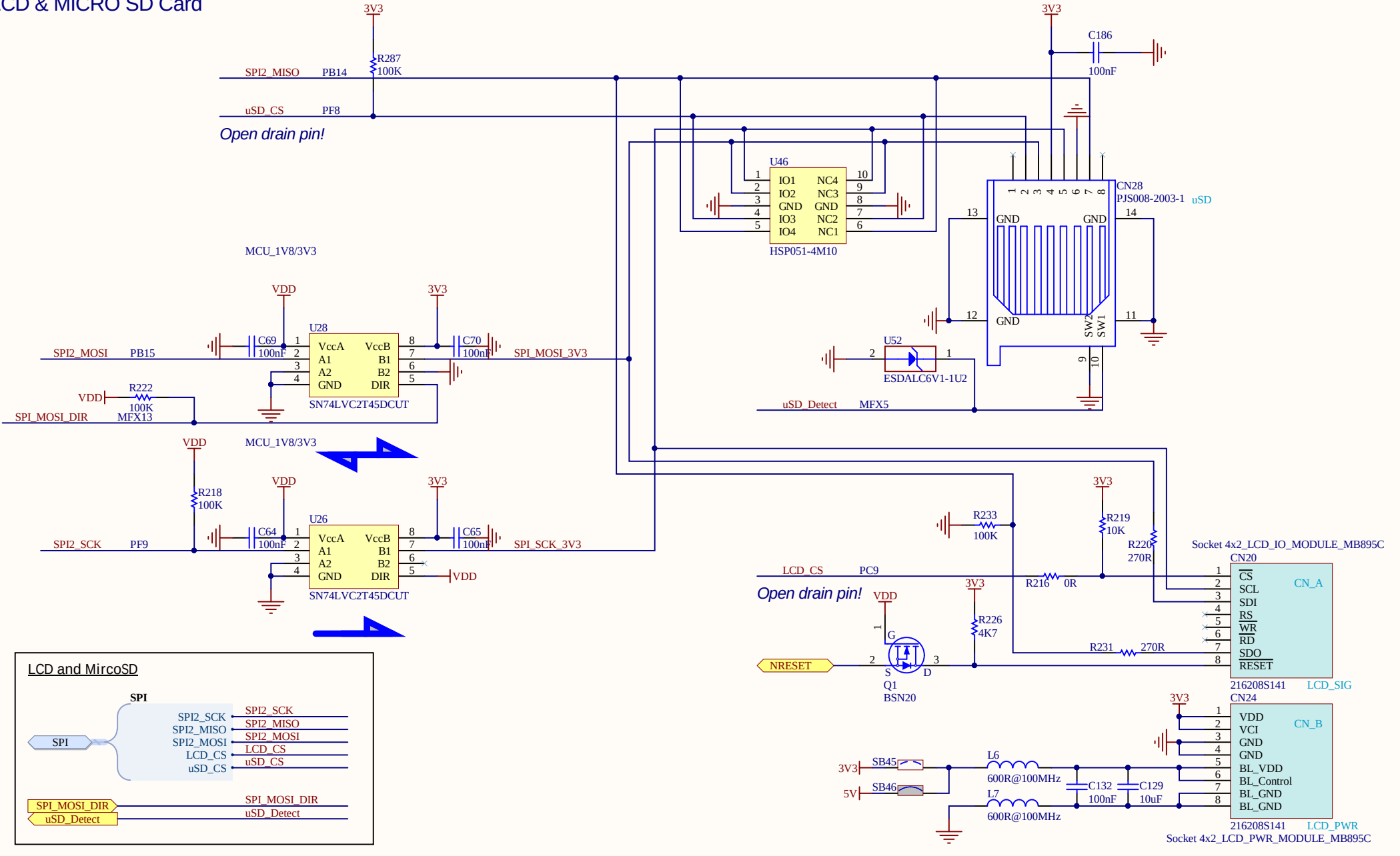
One Twin Quad SPI Flash	U12:MT25TL01GHHB8ESF-0SIT	U54:NA	R167/R168/R169/R170, SB120,SB36 ON	R319/R320/R321/R322, SB119, SB35, C184 OFF
Two Quad SPI Flash (Default)	U12:MT25QL512ABB8ESF-0SIT	U54:MT25QL512ABB8ESF-0SIT	R319/R320/R321/R322, SB119, C184 ON	R167/R168/R169/R170, SB120, SB35, SB36 OFF



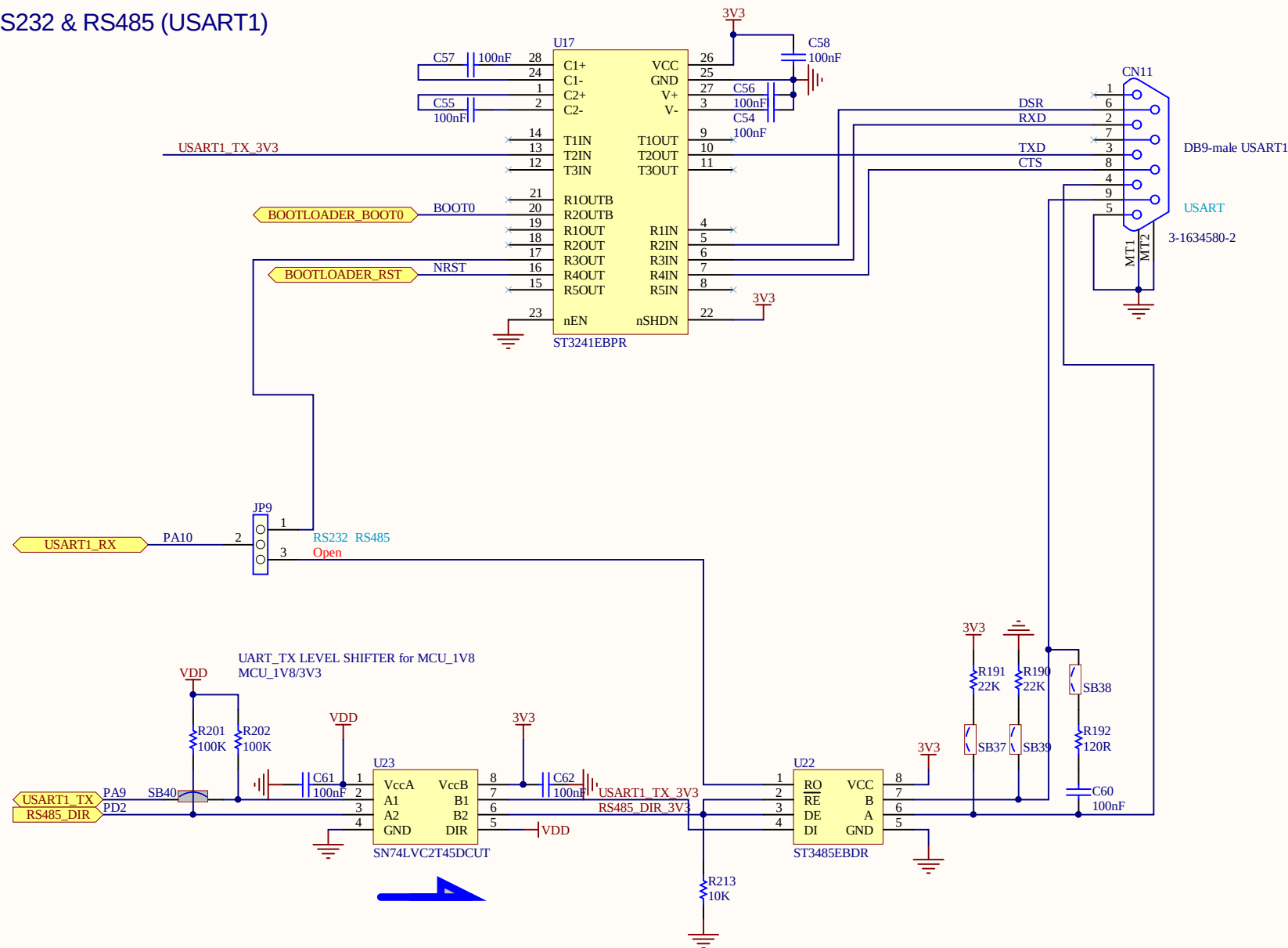
Audio



LCD & MICRO SD Card



RS232 & RS485 (USART1)

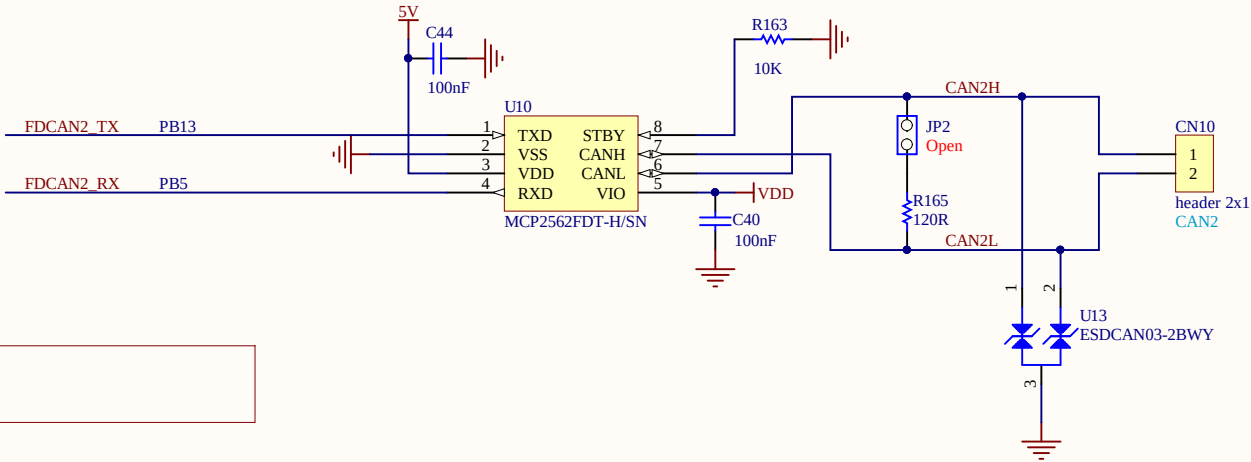
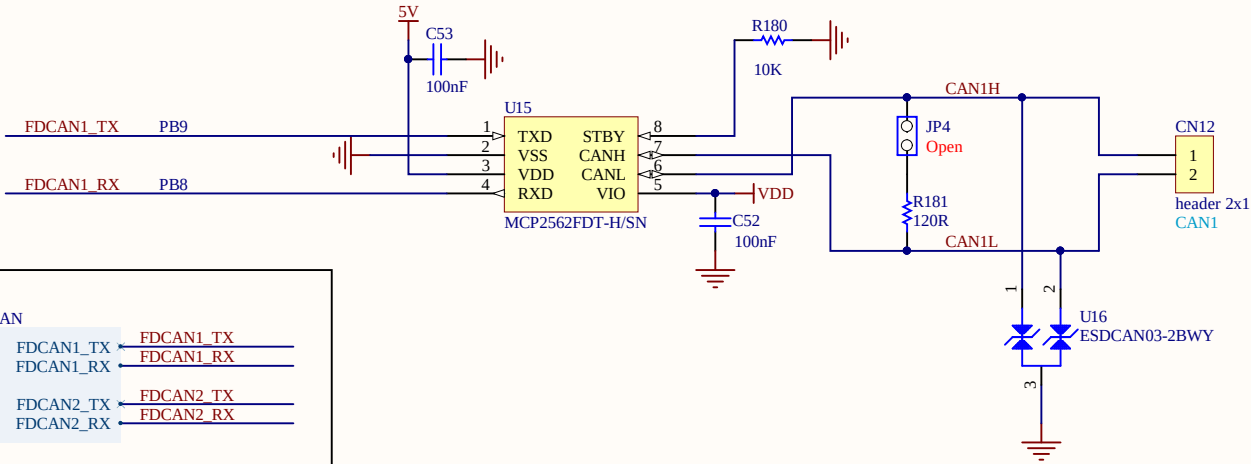
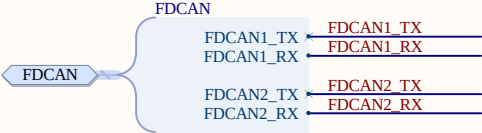


Title: RS232 & RS485		
Project: STM32G474E-EVAL		
Variant: G474EMC		
Revision: B-04		Reference: MB1397
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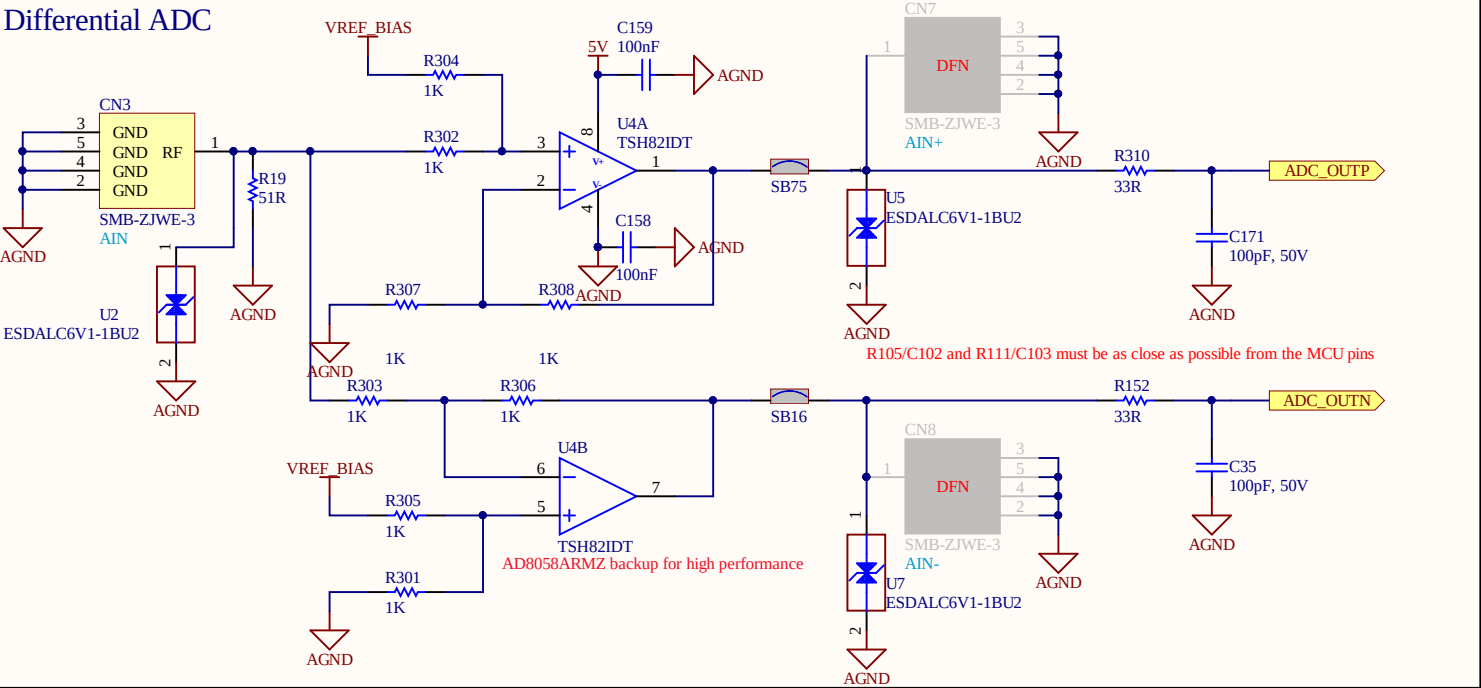
2x CAN FD

FDCAN

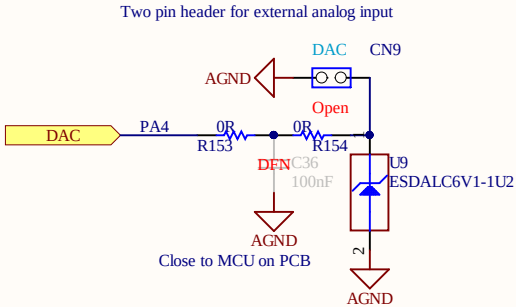


Operating range: VDD>1.8V

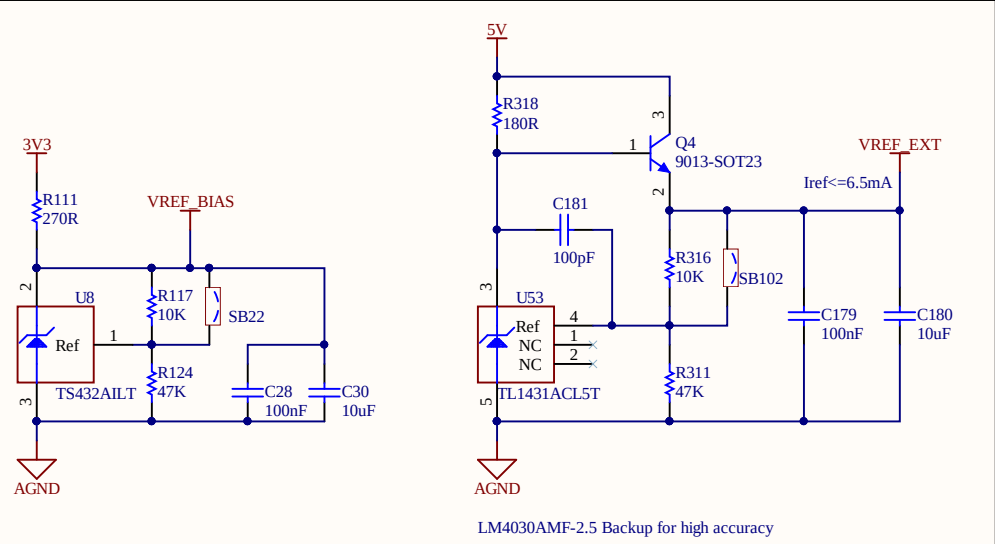
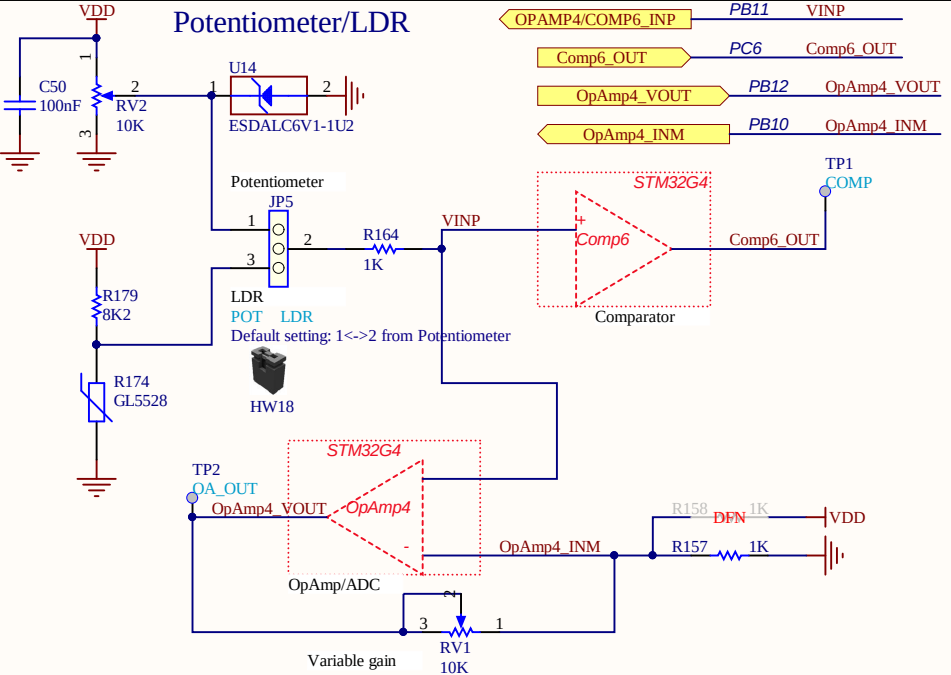
Differential ADC



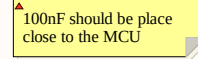
DAC connector



Potentiometer/LDR



excl with WIFI wake-up

[illegible]

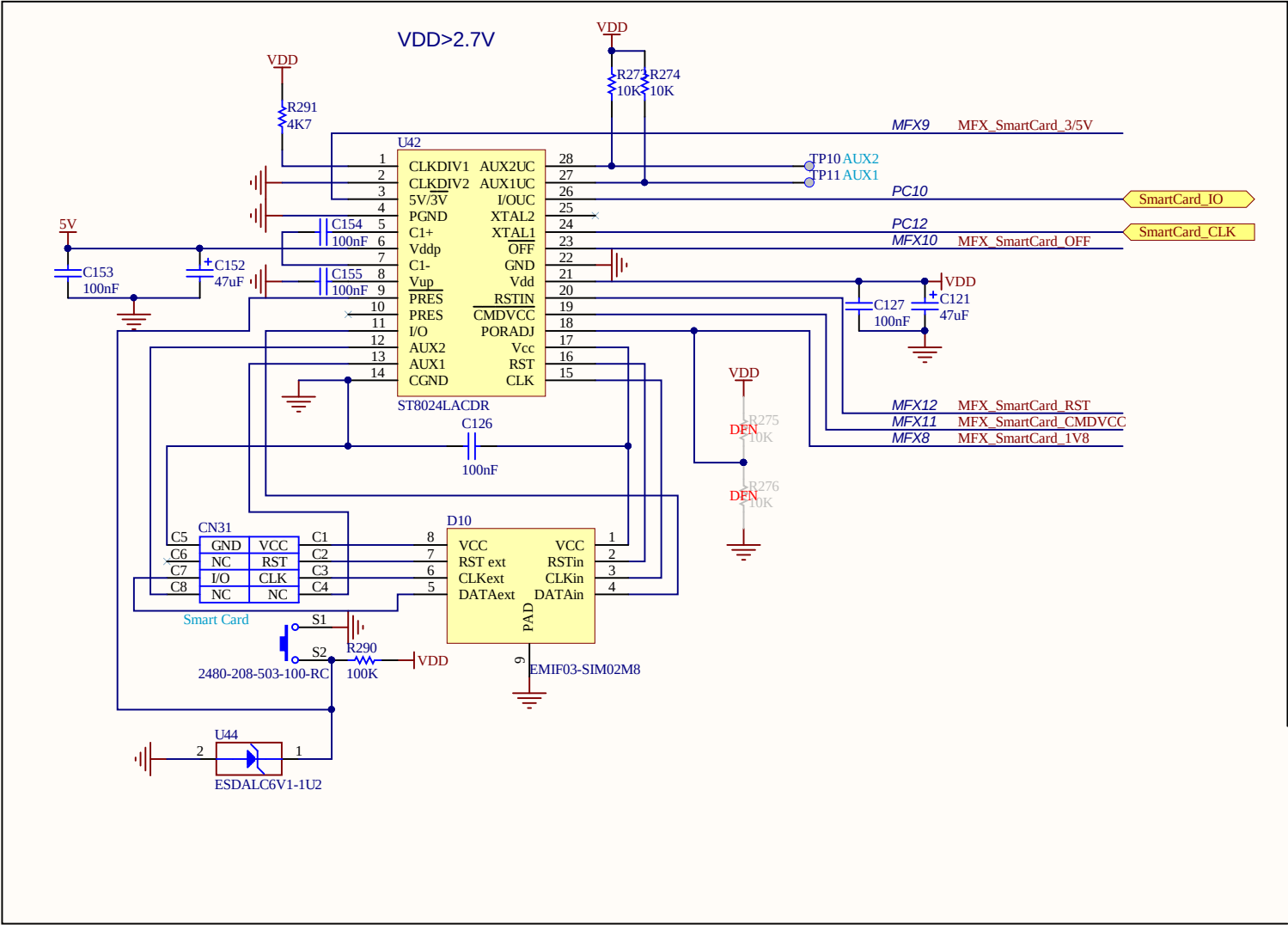
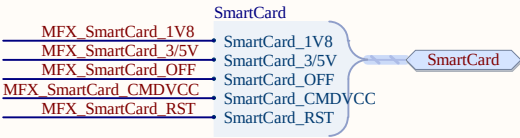
The diagram illustrates the connection of the EXT_I2C module. The I2C3 module is connected to the SSM-104-L-DH module via a CN1 connector. The I2C3 module's SDA and SCL pins are connected to the SSM-104-L-DH module's IO1 and IO2 pins, respectively. The SSM-104-L-DH module also has a VBUS pin connected to a 5V supply and a GND pin connected to ground. The SSM-104-L-DH module is labeled 'EXT_I2C'.

Temperature sensor

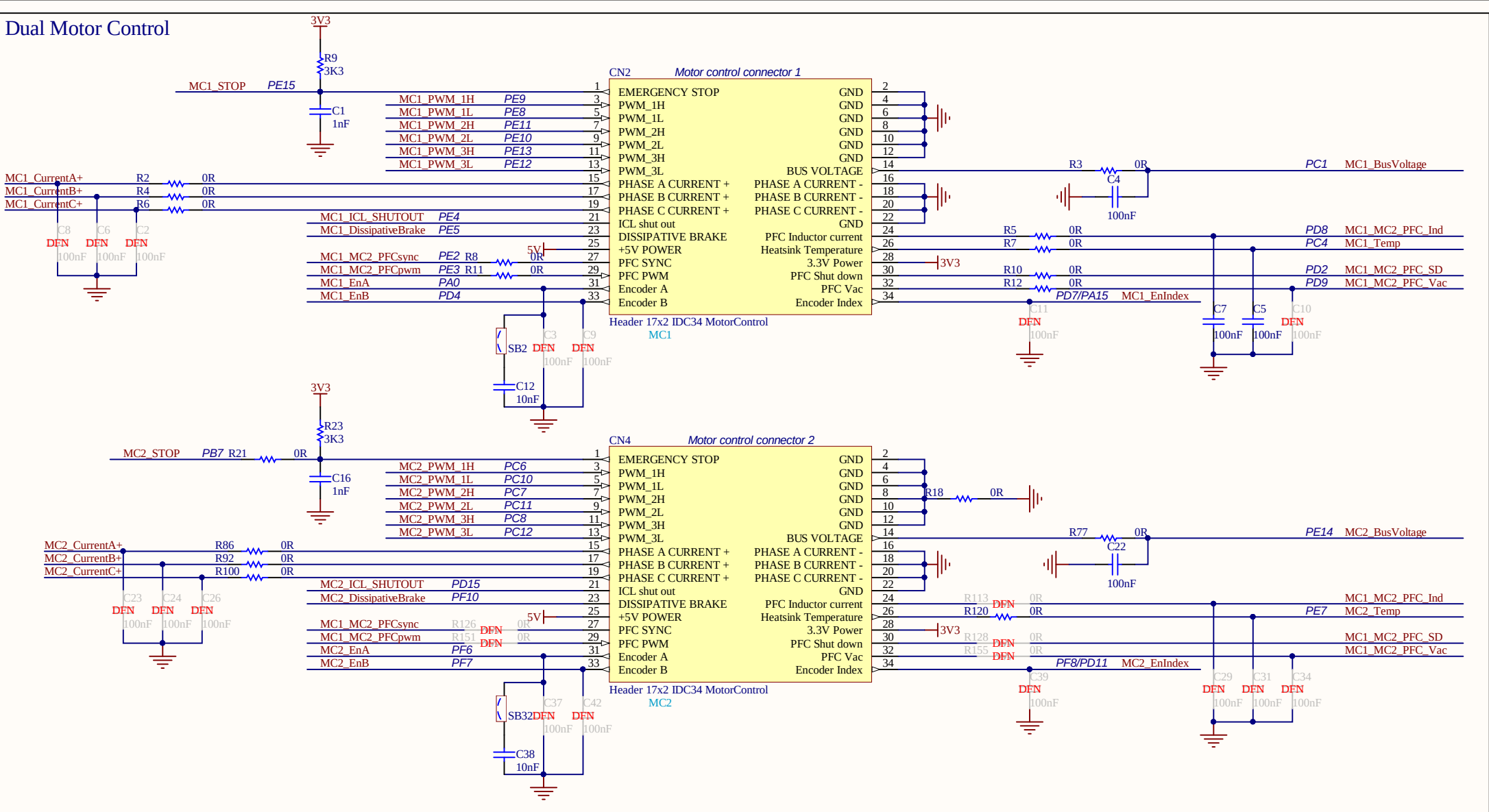
Operating range: VDD>2.25V
I2C address: 1001000



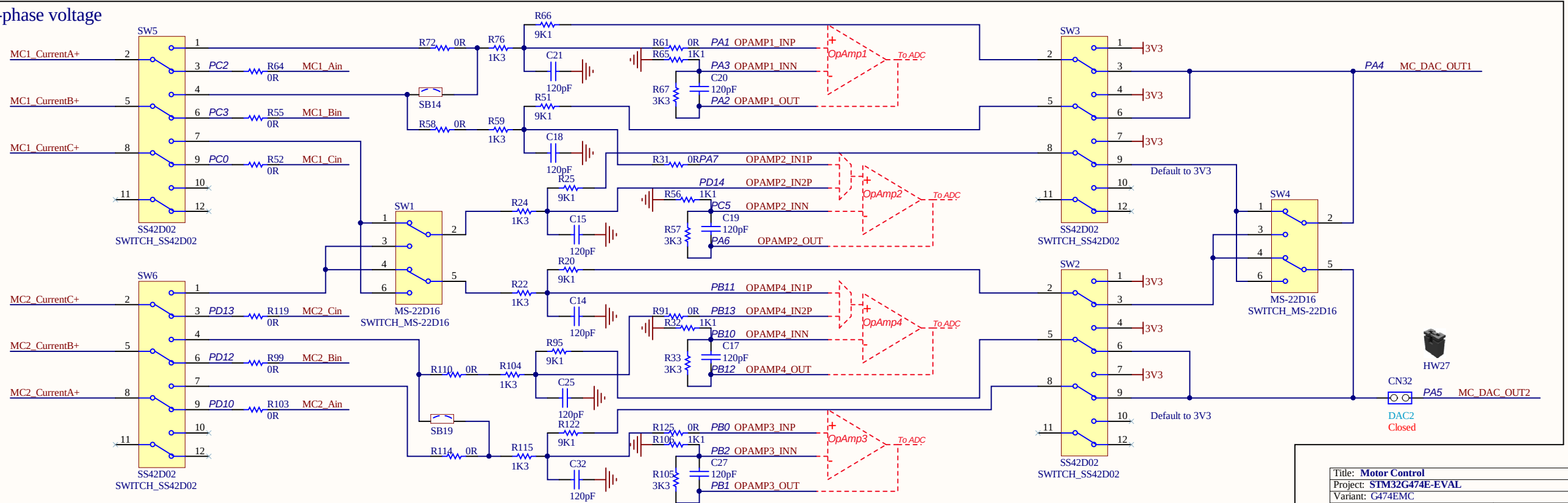
Smart Card



Dual Motor Control

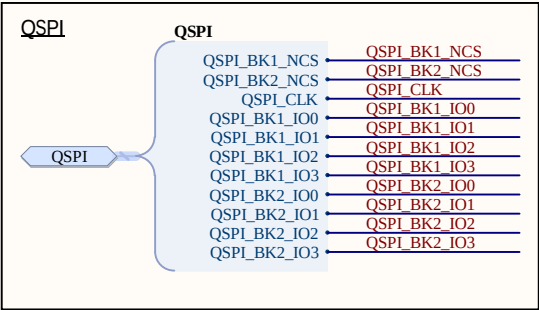
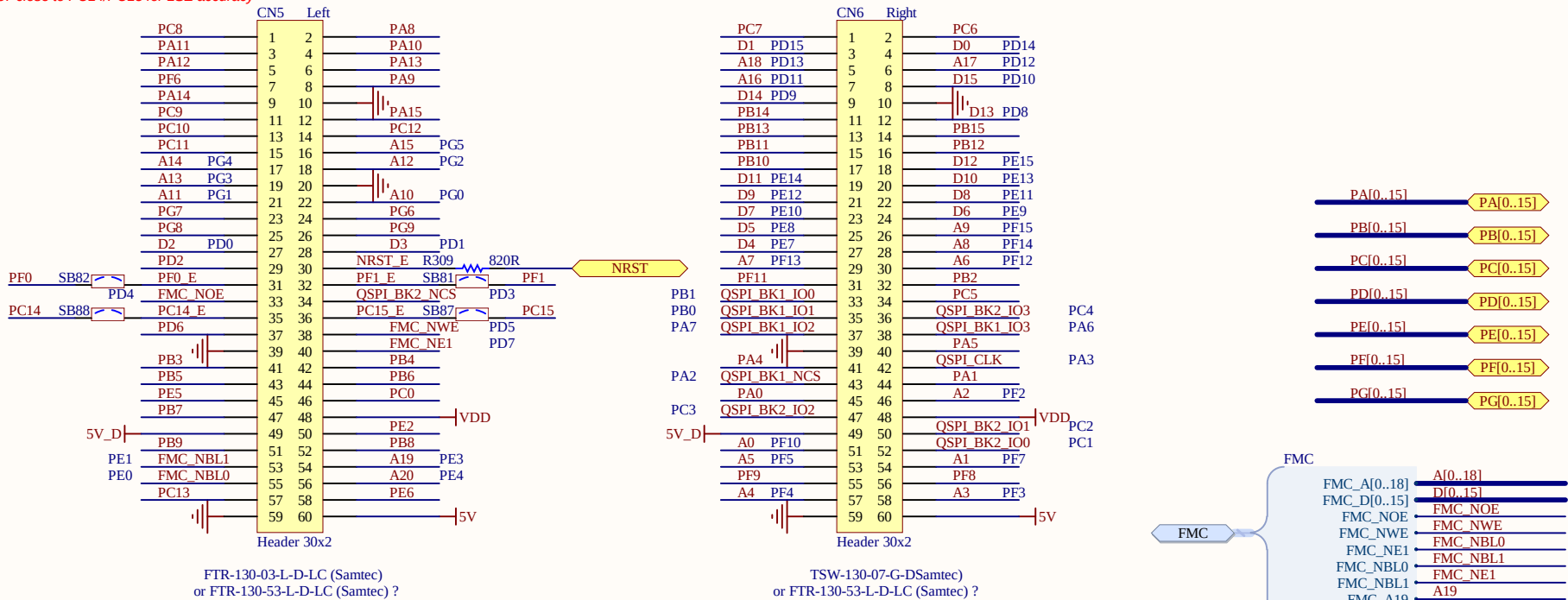


3-phase voltage

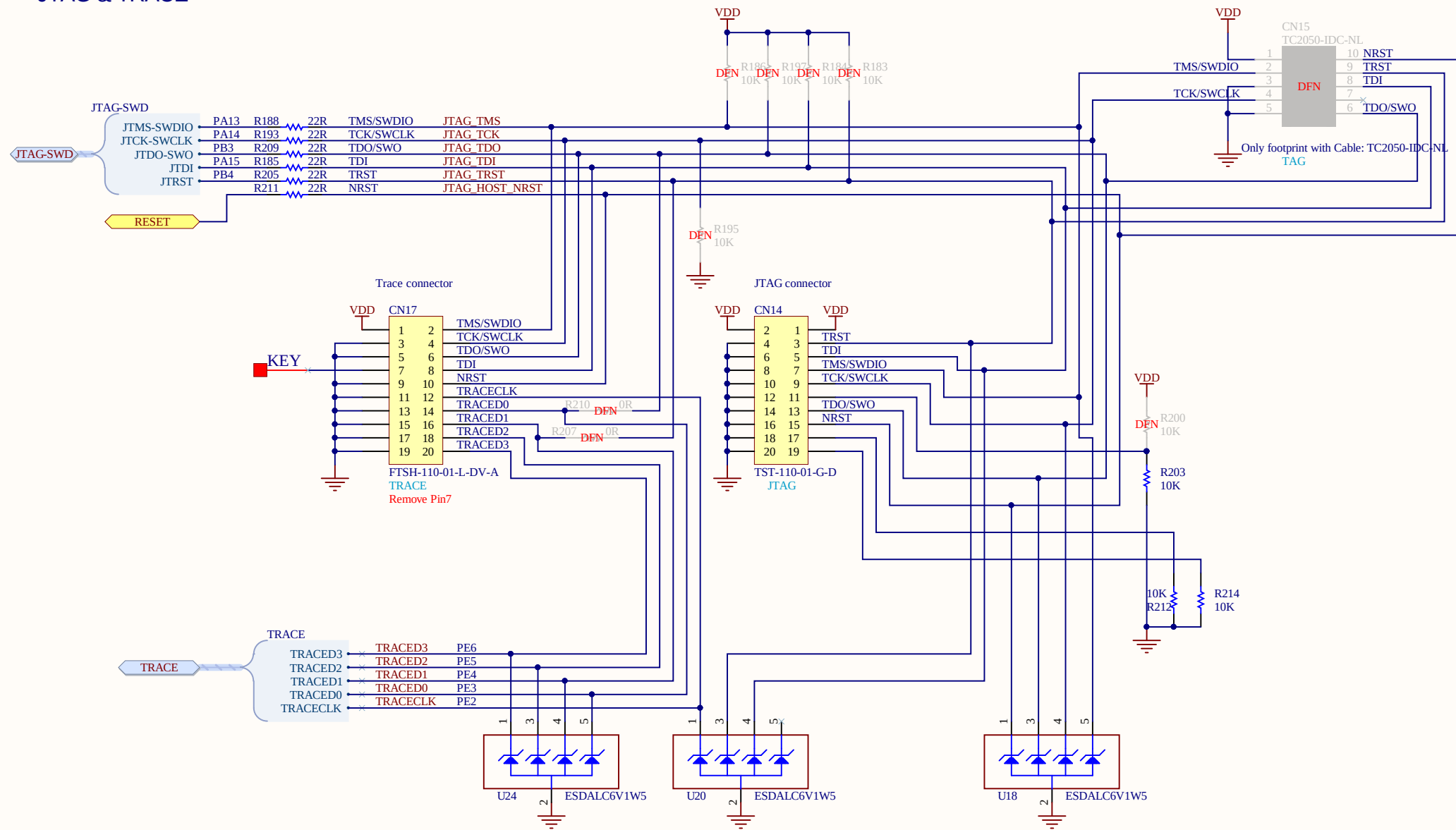


MCU EXTENSION CONNECTORS

SB82 and SB81 close to PF0/PF1 for HSE accuracy
SB88 and SB87 close to PC14/PC15 for LSE accuracy



JTAG & TRACE



MFX I/O EXPANDER



LED4 & EXT RESET exclusive together (MFX I/O 13)

MFX CURRENT MEASUREMENT



bypass

IDD BYPASS

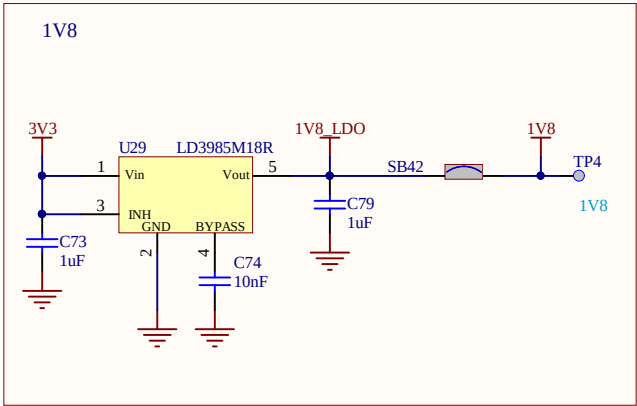
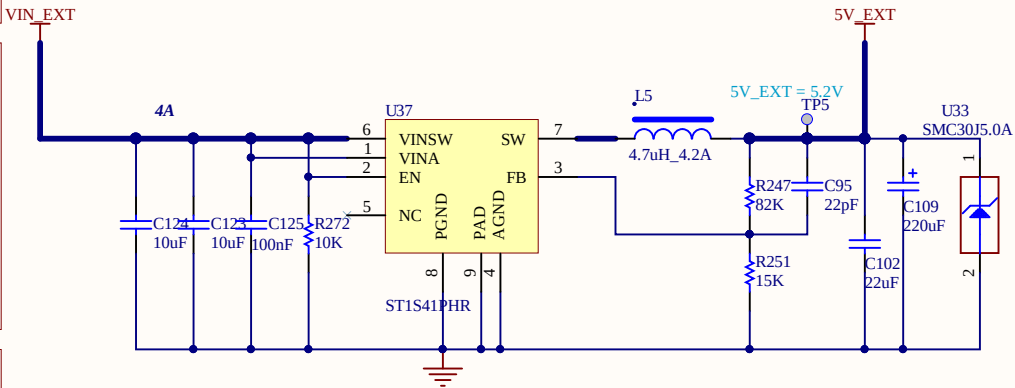
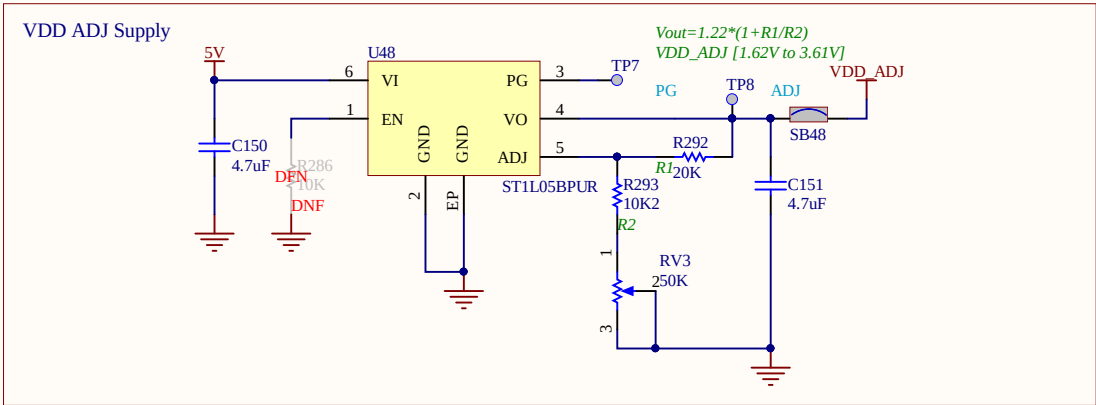
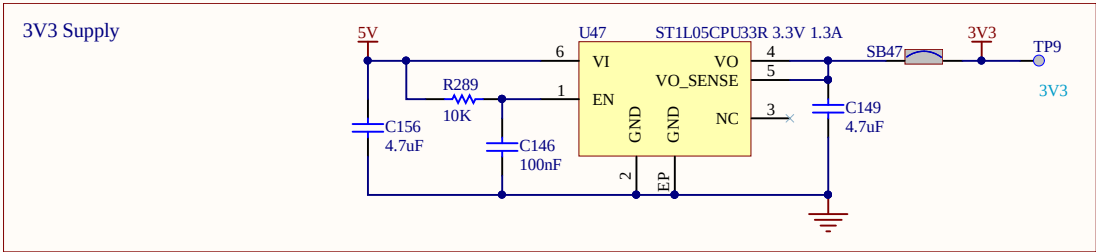
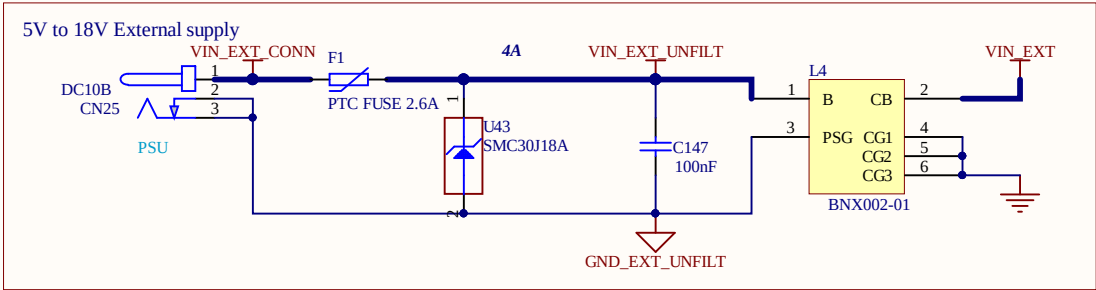
default :1-2

New Parts

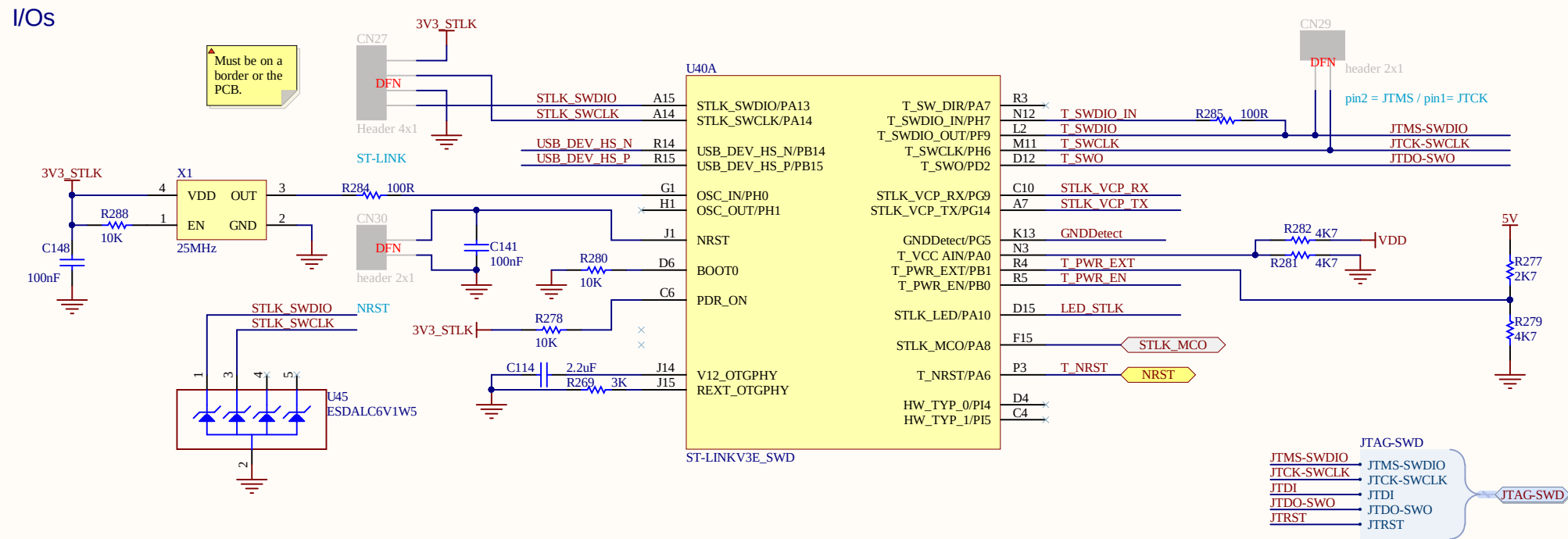


5V Power Supply options

The diagram illustrates a 5V power supply circuit. A 5V source (HW12) is connected to a shunt resistor (R198, 620R) and a load (LD6, GREEN LED). The LED is labeled with 'Curr=5mA, Lum=25%'. The circuit is powered by a 5V source labeled 'HW12'.



I/Os

[illegible]

5V_USB CHGR

U34
ESDA7P60-1U1M

C89
4.7uF

C81
100pF, 50V

Impedance Constraint [Min = 85.00 Max = 95.00]
Matched Net Lengths [Tolerance = 0.2mm]

CN21

USB_Micro-B receptacle

VBUS
DM
DP
ID
GND
Shield
Shield
Shield
Shield
EXP
EXP

USB

U31
ECMF02-2AMX6

NC
D-
D+
GND
D-
D+

USB_DEV_HS_CN_P
USB_DEV_HS_CN_N
USB_DEV_HS_N
USB_DEV_HS_P

USB_ub_105017-0001
STLINK V3E USB HS

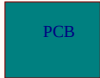
The diagram illustrates the STDC14 connector and its internal components. At the top, a 100R resistor (R187) is connected to the GNDDetect pin. The connector pins are labeled 1 through 14. The internal components are labeled as follows:

- Pin 1:** T_SWDIO_STDC (R208, 47R) and T_SWDIO
- Pin 2:** T_SWCLK_STDC (R206, 47R) and T_SWCLK
- Pin 3:** T_SWO_STDC (R204, 47R) and T_SWO
- Pin 4:** T_JTDI_STDC (R199, 47R) and T_JTDI
- Pin 5:** T_NRST_STDC (R196, 47R) and T_NRST
- Pin 6:** VCP_TX_STDC (R194, 47R) and STLK_VCP_RX
- Pin 7:** VCP_RX_STDC
- Pin 8:** GNDDetect
- Pin 9:** T_SWDIO_STDC
- Pin 10:** T_SWCLK_STDC
- Pin 11:** T_SWO_STDC
- Pin 12:** T_JTDI_STDC
- Pin 13:** T_NRST_STDC
- Pin 14:** VCP_TX_STDC

The connector is labeled "CN16" and "STDC14". The internal components are labeled "ESDALC6V1W5". The diagram also shows a "KEY" and a "VDD" connection. A note states: "22R resistor must be as close as possible from the STDC14 connector".

HW Mechanical parts

HW6



PCB

PCB

HW7

MB1397-G474E-B01 syywwxxxxx QR code



BOARD REF

HW8

STM32G474E-EVAL



BOARD CPN

HW2



LOGO ST

HW5



LOGO CE

HW4



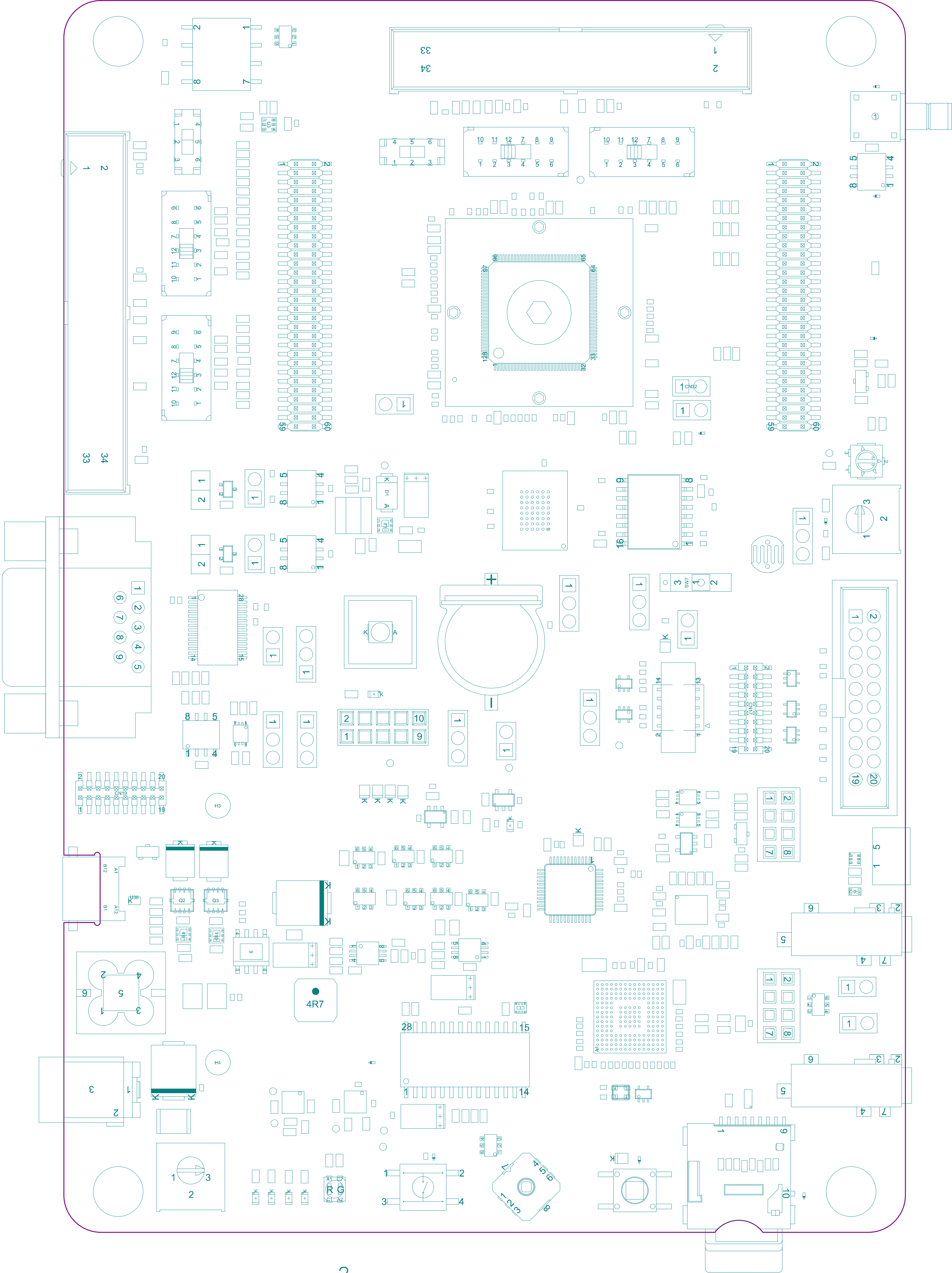
LOGO ESD

HW3



LOGO ROHS





2
LAYER 2 (GND PLANE)

FAB DARWING & DRILL LEGEND

FAB DARWIN & DRILL LEGEND

