

# NUCLEO-32 STM32G4 series

---

MB1430

---

## Table of contents

---

- Sheet 1: Project overview (this page)
- Sheet 2: MB1430\_Top
- Sheet 3: STM32G4 microcontroller
- Sheet 4: STLink\_V3E\_Module
- Sheet 5: Power
- Sheet 6: Arduino\_extension\_connectors
- Sheet 7: Mechanical

U\_MB1430\_Top  
MB1430\_Top.SchDoc



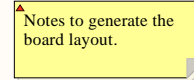
## Legend

---

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

Text to be added to silkscreen.

Warning text.



## OPEN PLATFORM LICENSE AGREEMENT

---

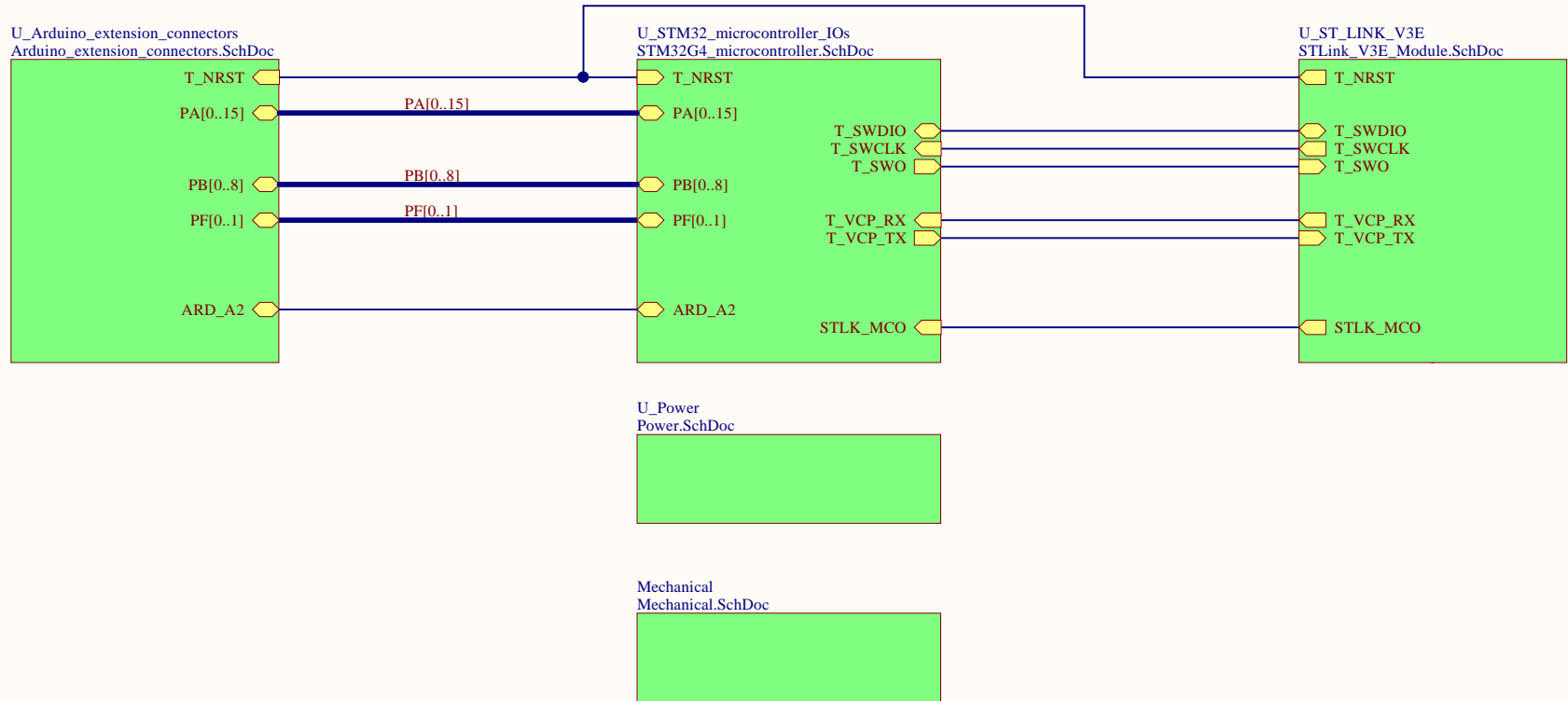
The Open Platform License Agreement (“Agreement”) is a binding legal contract between you (“You”) and STMicroelectronics International N.V. (“ST”), a company incorporated under the laws of the Netherlands acting for the purpose of this Agreement through its Swiss branch 39, Chemin du Champ des Filles, 1228 Plan-les-Ouates, Geneva, Switzerland.

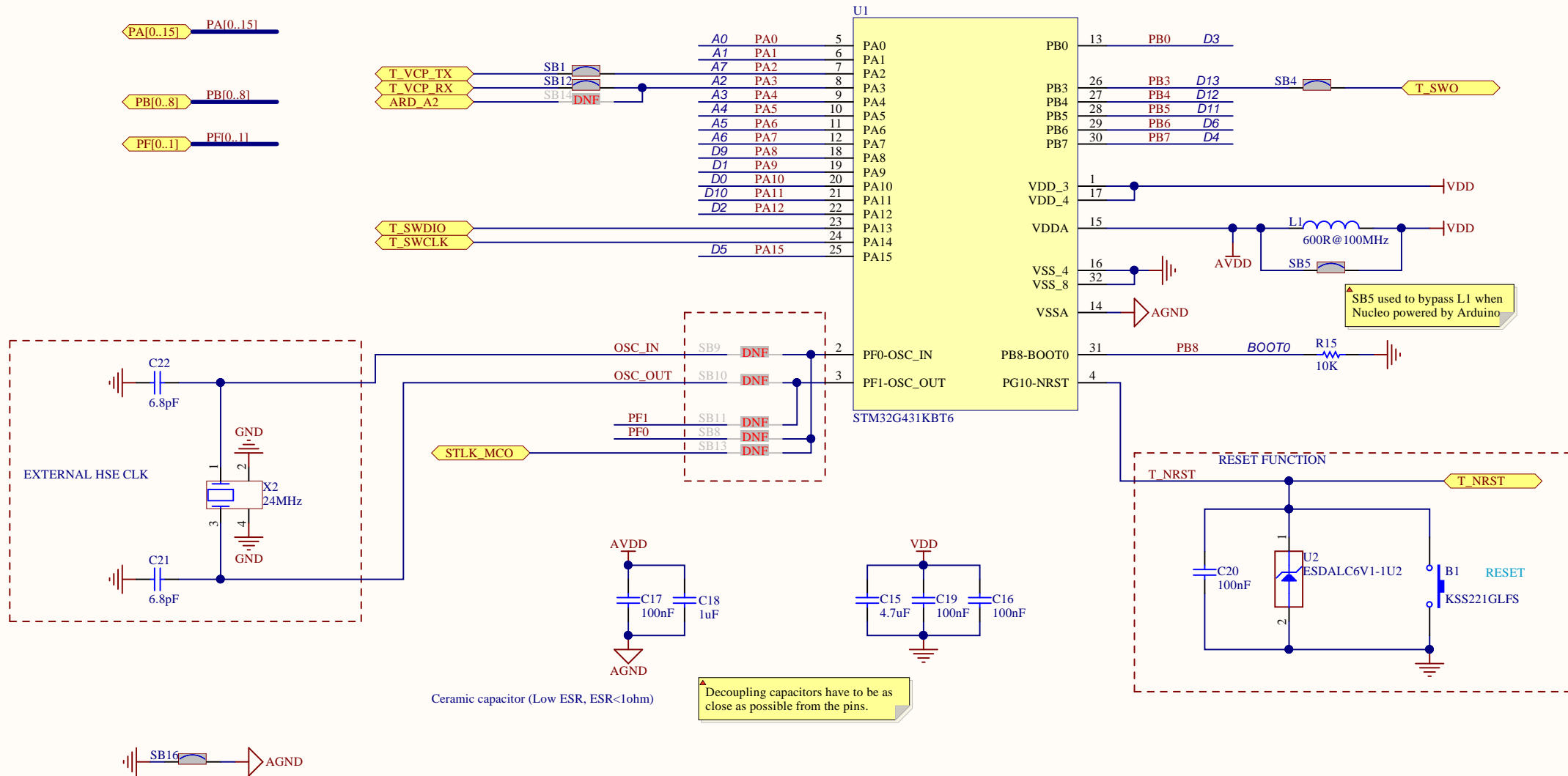
By using the enclosed reference designs, schematics, PC board layouts, and documentation, in hardcopy or CAD tool file format (collectively, the “Reference Material”), You are agreeing to be bound by the terms and conditions of this Agreement. Do not use the Reference Material until You have read and agreed to this Agreement terms and conditions. The use of the Reference Material automatically implies the acceptance of the Agreement terms and conditions.

The complete Open Platform License Agreement can be found on [www.st.com/opla](http://www.st.com/opla).

Title: <b>Project overview</b>		
Project: <b>NUCLEO-32 STM32G4 series</b>		
Variant: G431KBT6		
Revision: A-02		Reference: MB1430
Size: A4	Date: 13-August-18	Sheet: 1 of 7





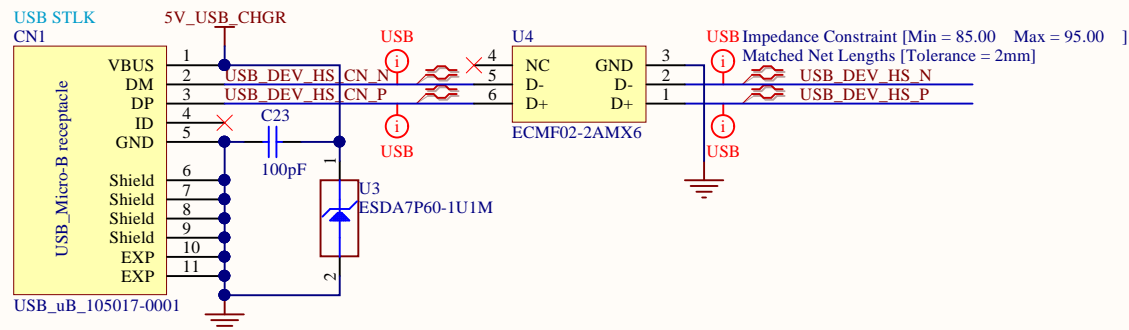


Ceramic capacitor (Low ESR, ESR<1ohm)

Decoupling capacitors have to be as close as possible from the pins.

SB5 used to bypass L1 when Nucleo powered by Arduino

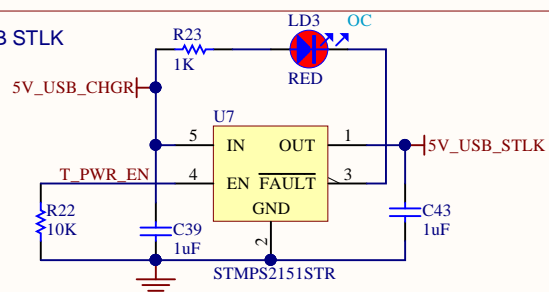
## STLK USB HS & 5V USB CHARGER



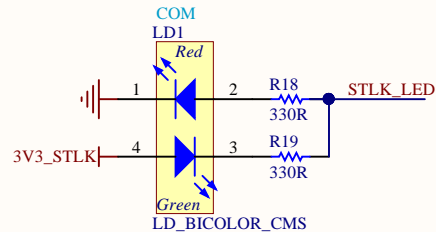
T_SWCLK	22R	R13	T_SWCLKa
T_SWO	22R	R10	T_SWOa
T_NRST	22R	R4	T_NRSTa
T_VCP_TX	22R	R9	STLK_VCP_RX

Specific constraints for T\_SWCLK and T\_SWO (must have same length and must be Shielded), The routing of the tracks must be done on continuity from ST-LINKV3E --> 22ohm resistors --> Target MCU, to avoid stub noises and for EMC approach.

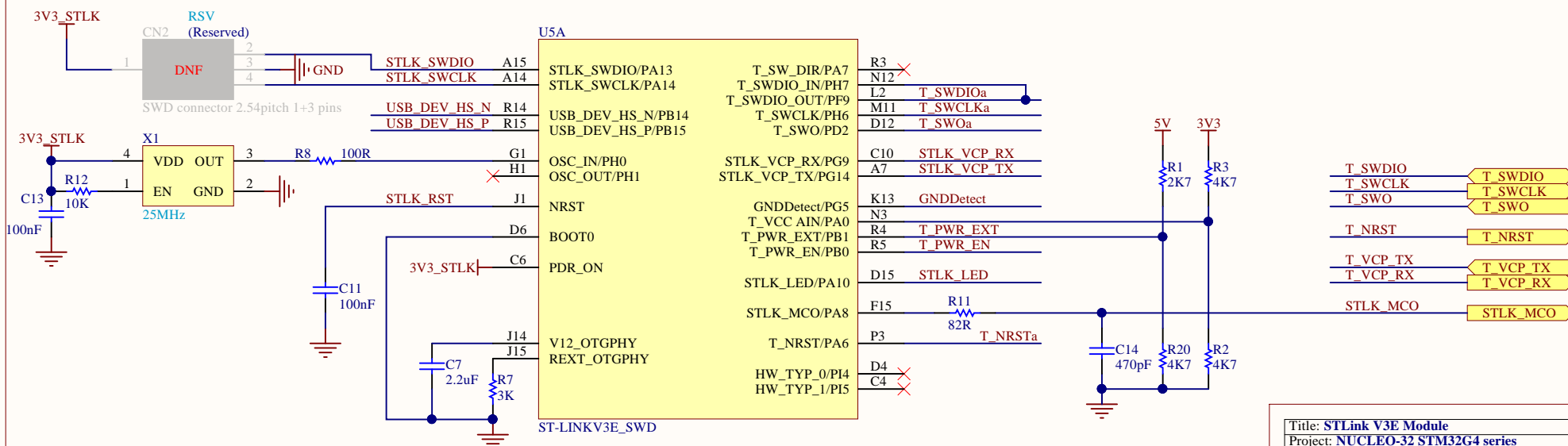
## 5V from USB STLK



## STLK communication LEDs



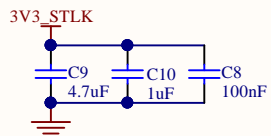
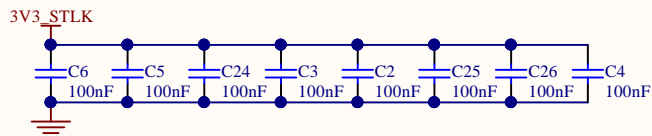
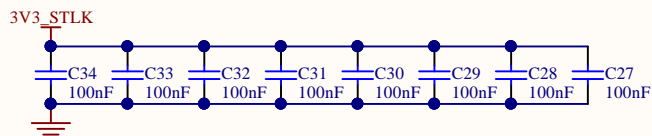
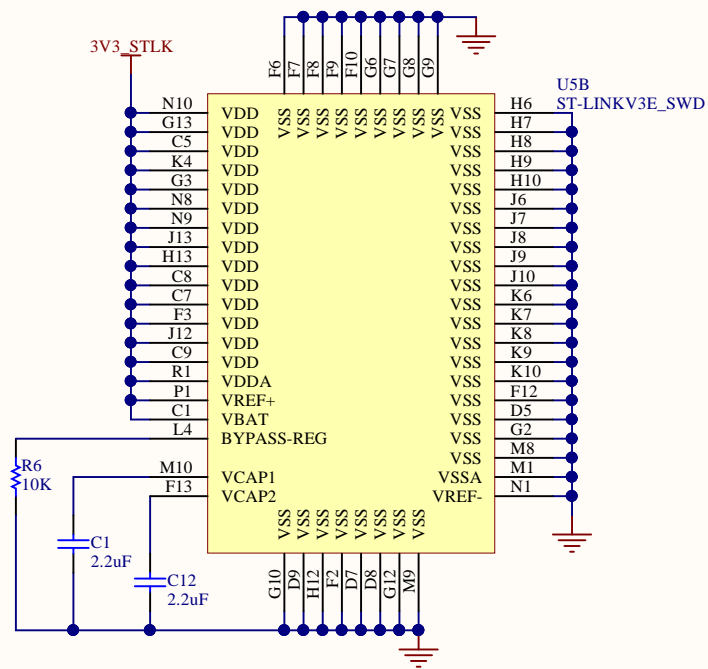
## ST-LINKV3E SWD MCU



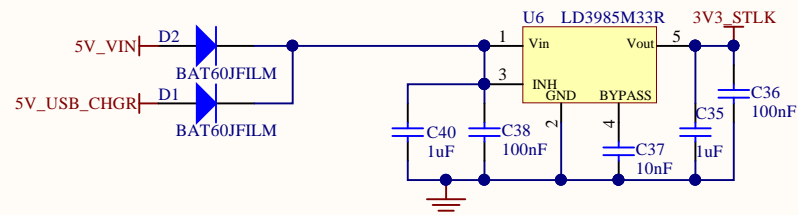
Title: STLink V3E Module	
Project: NUCLEO-32 STM32G4 series	
Variant: G431KBT6	
Revision: A-02	Reference: MB1430
Size: A4	Date: 13-August-18
Sheet: 4 of 7	



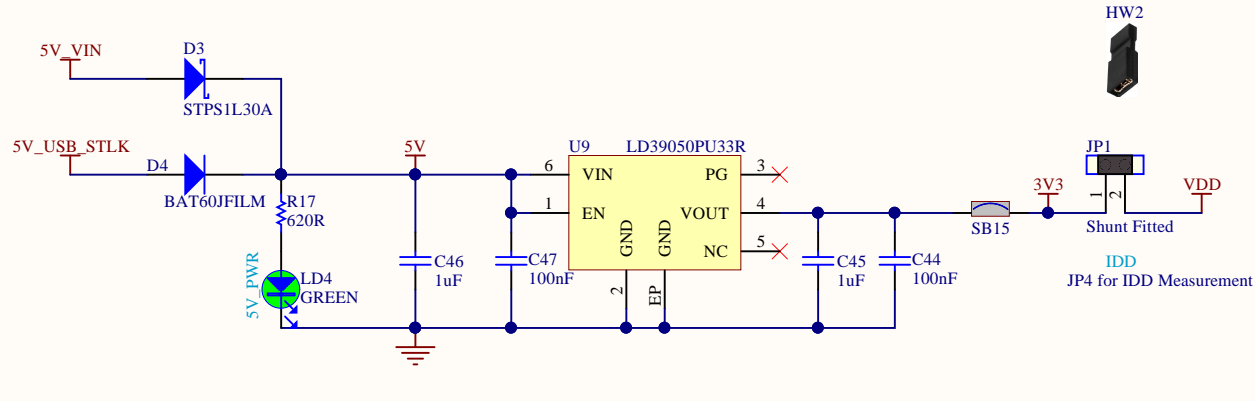
### ST-LINKV3E SWD MCU POWER



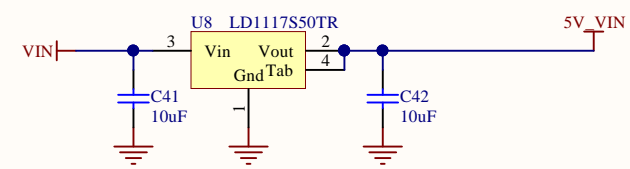
### 3.3 VOLTS POWER SUPPLY FOR ST-LINK



### VDD PWR



### VIN / 5V PWR



PA[0..15]

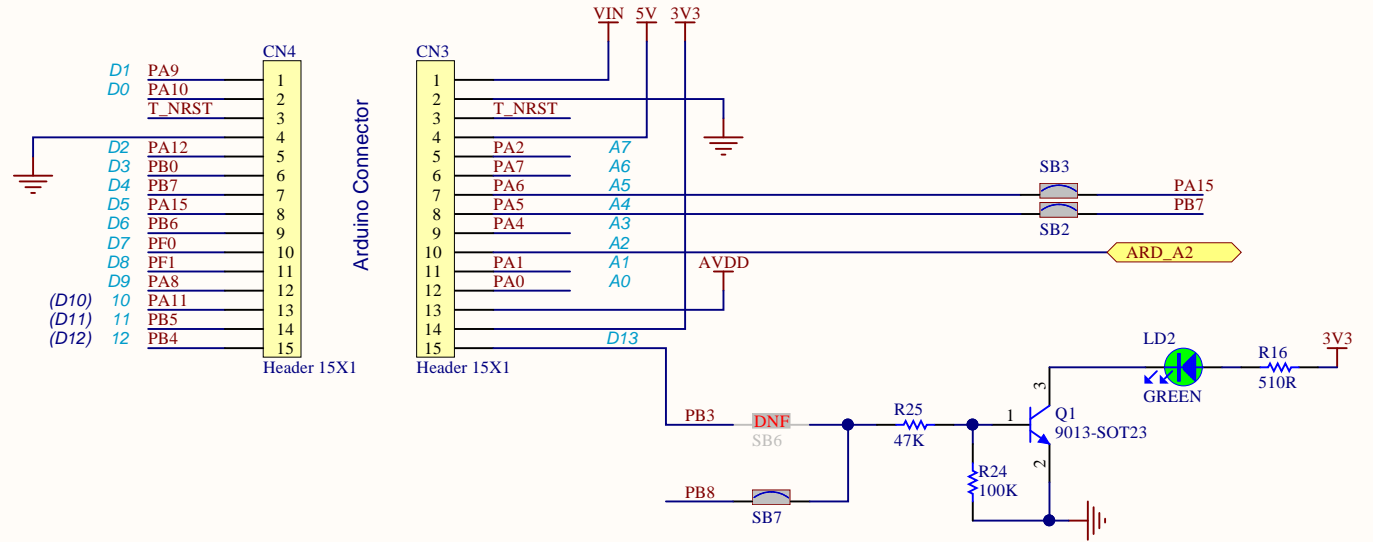
PB[0..8]

T\_NRST

PF[0..1]



### Extension connectors



HW10  
PCB  
MB1430A

HW11  
BOARD QR CODE  
QR code

HW12  
BOARD CPN  
G431KBT6

HW13  
LOGO NUCLEO

HW14  
LOGO CE

HW15  
LOGO ROHS

HW16  
LOGO ST

HW17  
LOGO ESD