NUCLEO64 ext-SMPS

MB1319

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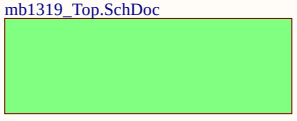
U_mb1319_Top
mb1319_Top.SchDoc



Legend

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

Text to be added to silkscreen.

Warning text.

Notes to generate the board layout.

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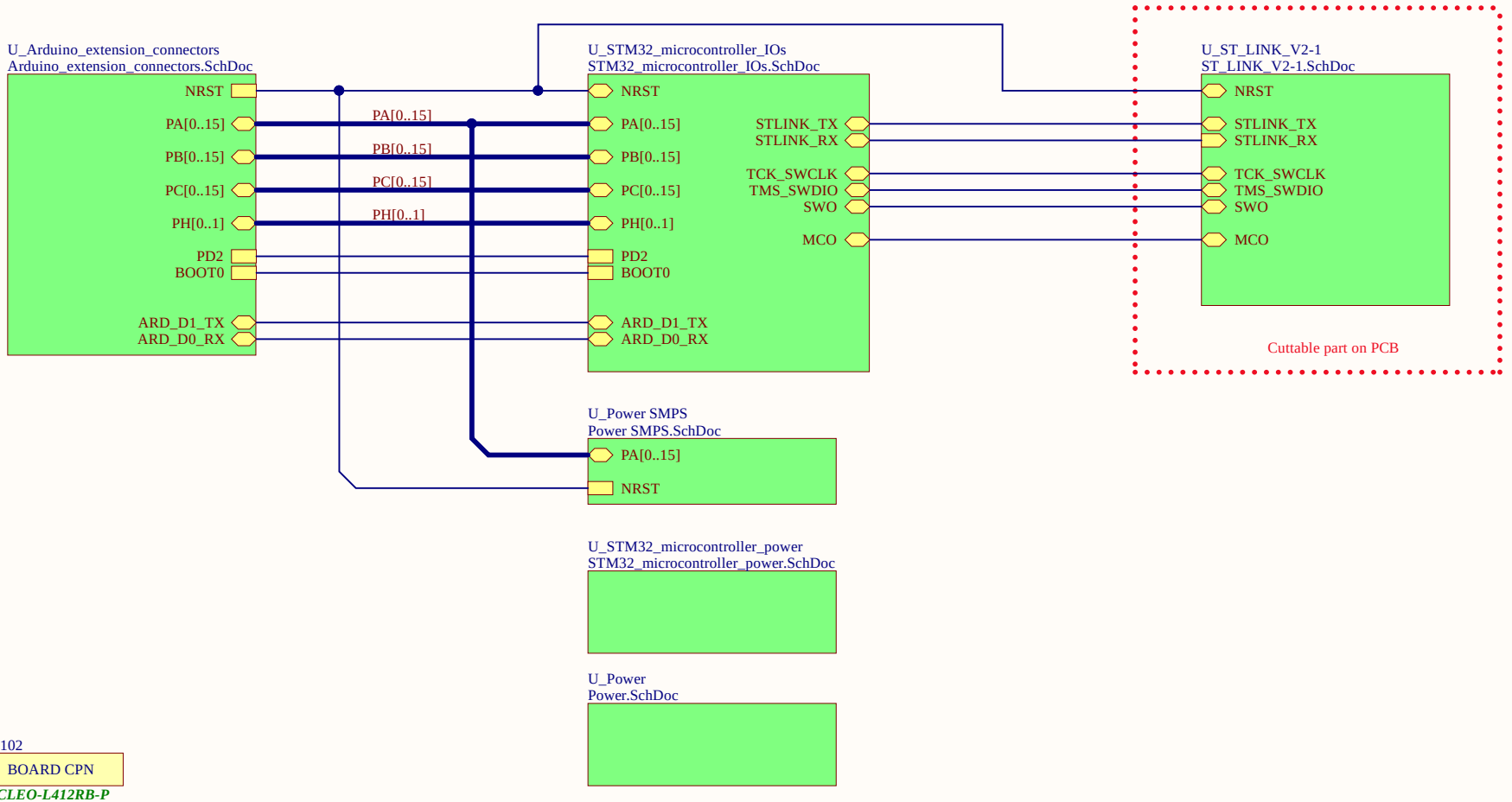
Title: **Project overview**		
Project: **NUCLEO64 ext-SMPS**		
Variant: L412RB_P		
Revision: C-01	Reference: MB1319	
Size: A4	Date: 05-January-2018	Sheet: 1 of 8

life.augmented



HW101
BOARD REF
MB1319C-01 xxxx

HW102
BOARD CPN
NUCLEO-L412RB-P

HW100
PCB
MB1319C

HW103
BLISTER
NUCLEO64_BLISTER

HW104 DNF LOGO NUCLEO
HW105 DNF LOGO ST
HW106 DNF LOGO CE
HW107 DNF LOGO ESD
HW108 DNF LOGO ROHS
HW109 DNF LOGO STM32

Title: **mb1319 Top: hierarchical view**		
Project: **NUCLEO64 ext-SMPS**		
Variant: L412RB_P		
Revision: C-01	Reference: MB1319	
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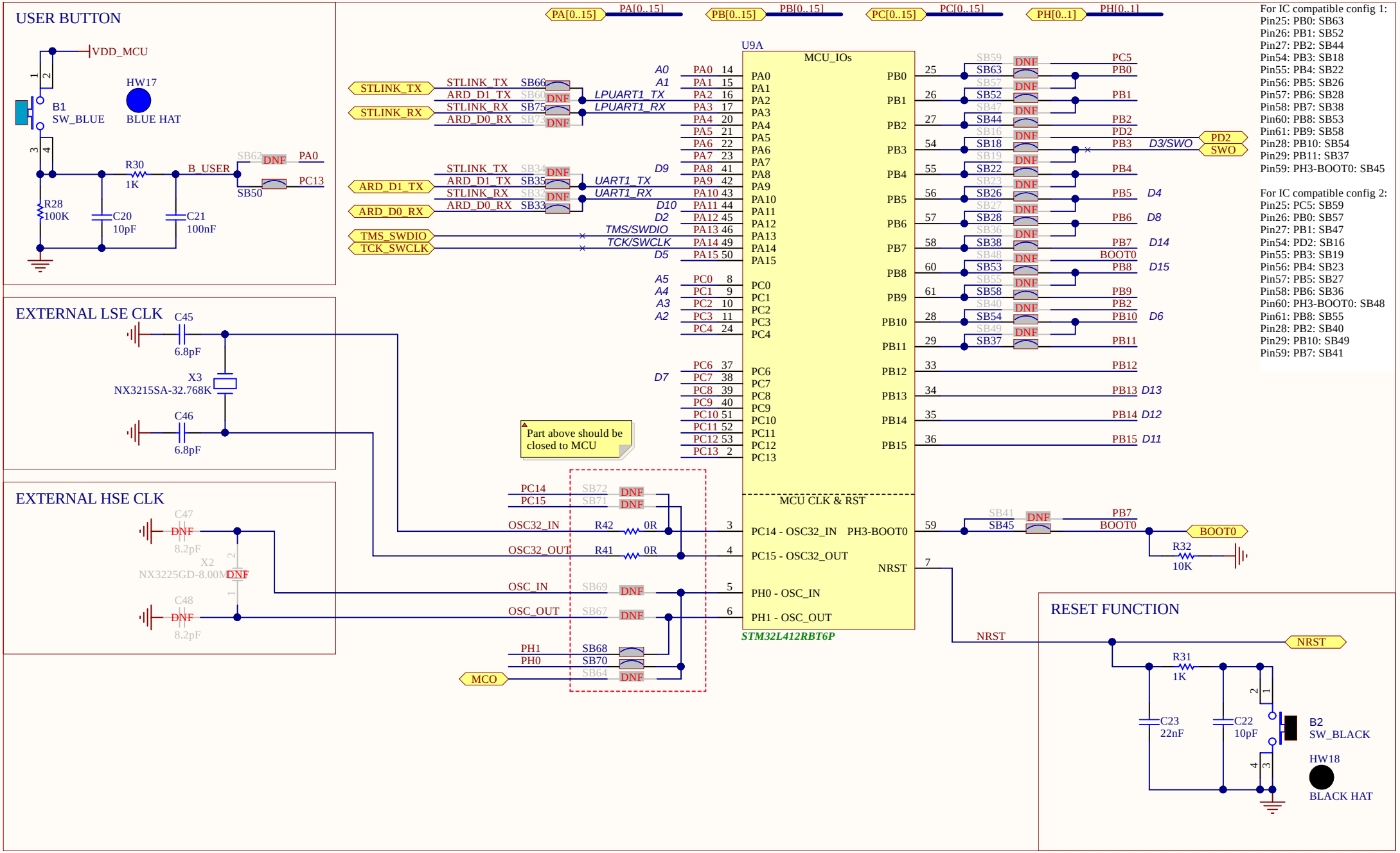
life.augmented



Title: **STM32 microcontroller I/Os**		
Project: **NUCLEO64 ext-SMPS**		
Variant: L412RB_P		
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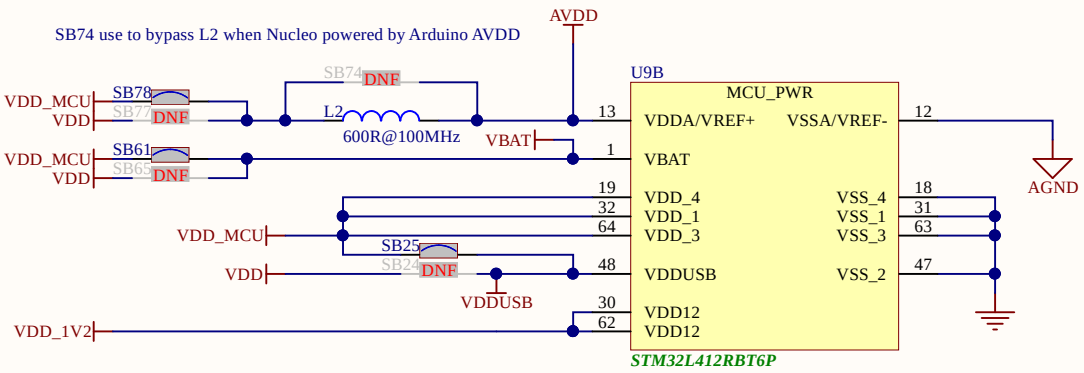
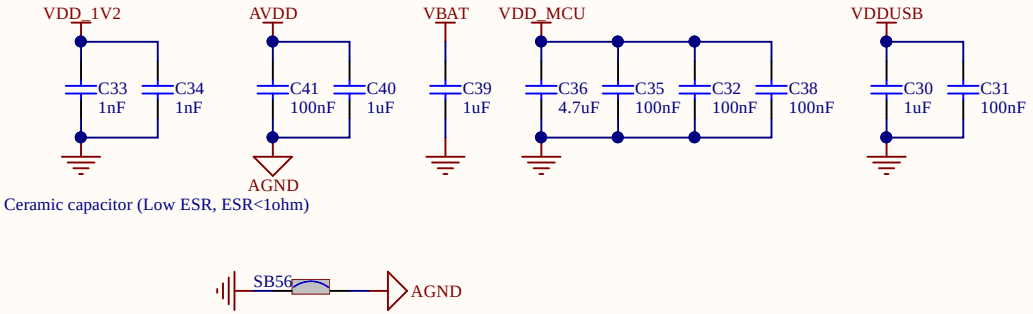
MCU PWR SUPPLIES



DECAPS



Title: **STM32 microcontroller Power**		
Project: **NUCLEO64 ext-SMPS**		
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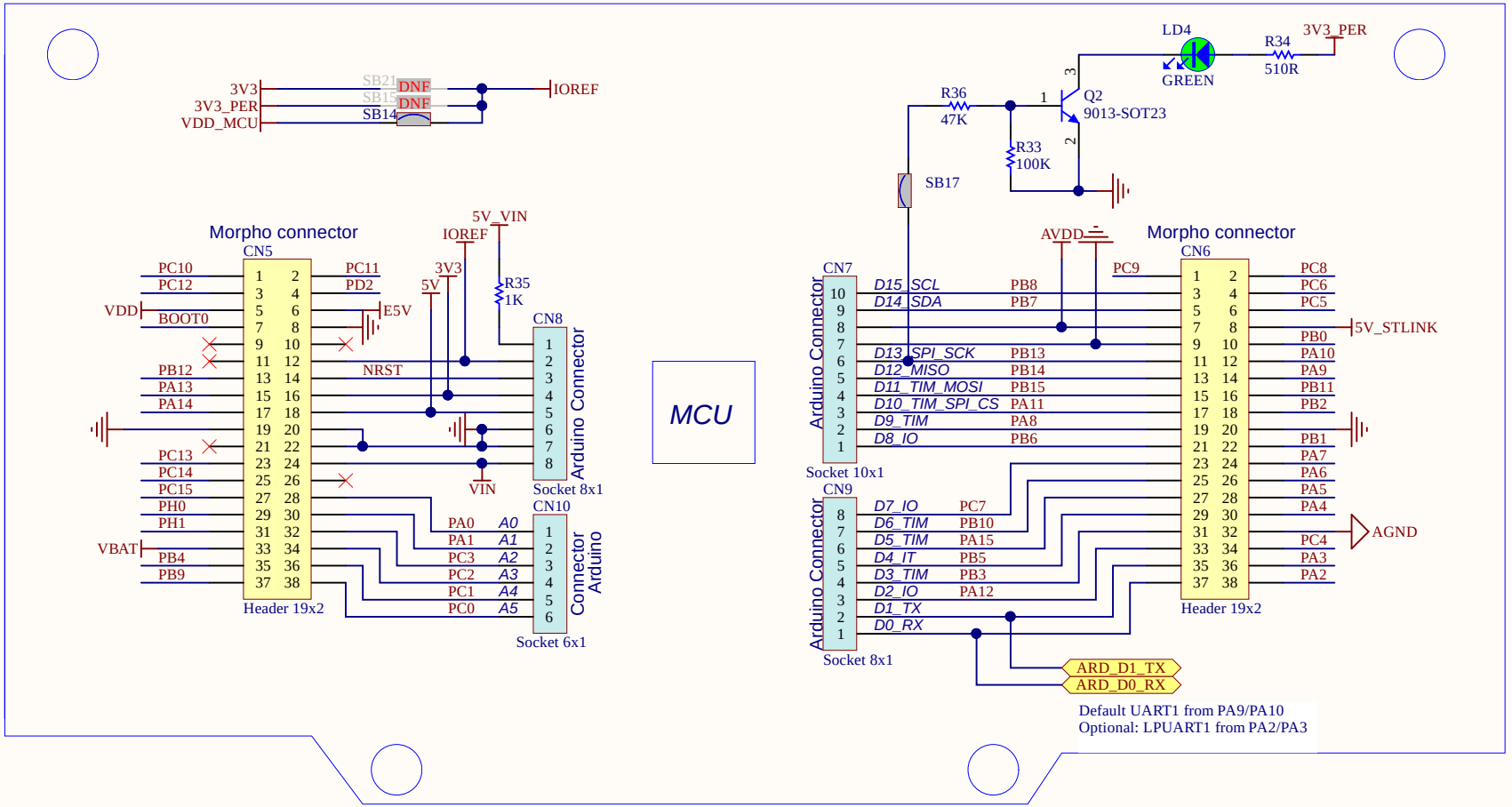
IOREF SELECTION	SB21	SB15	SB14	
IOREF= 3V3	Closed	Open	Open	
IOREF = 3V3_PER	Open	Closed	Open	
IOREF = VDD_MCU Mainly for 1V8 compatibility	Open	Open	Closed	Default

PA[0..15]
PB[0..15]
PC[0..15]
PD2
NRST
BOOT0
PH[0..1]



Title: **Arduino extension connectors**		
Project: **NUCLEO64 ext-SMPS**		
Variant: L412RB_P		
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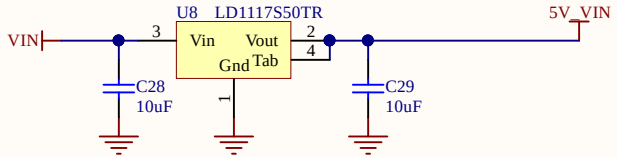
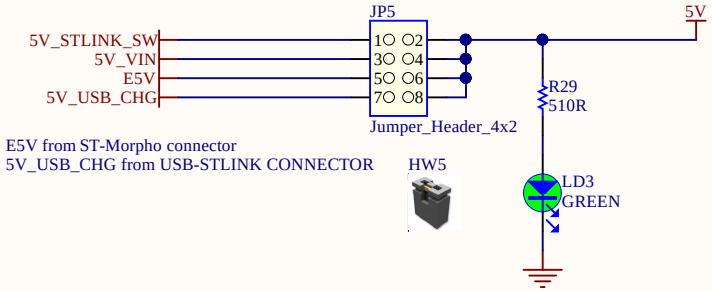
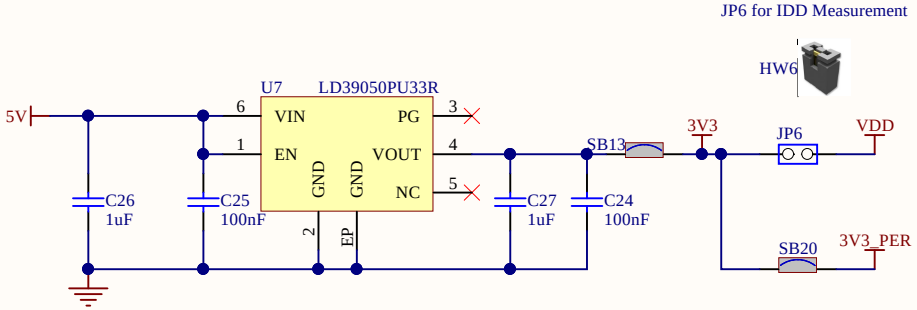
VIN / 5V PWR



5V PWR SELECTION



3V3 PWR



Title: **MAIN POWER 5V / 3V3**		
Project: **NUCLEO64 ext-SMPS**		
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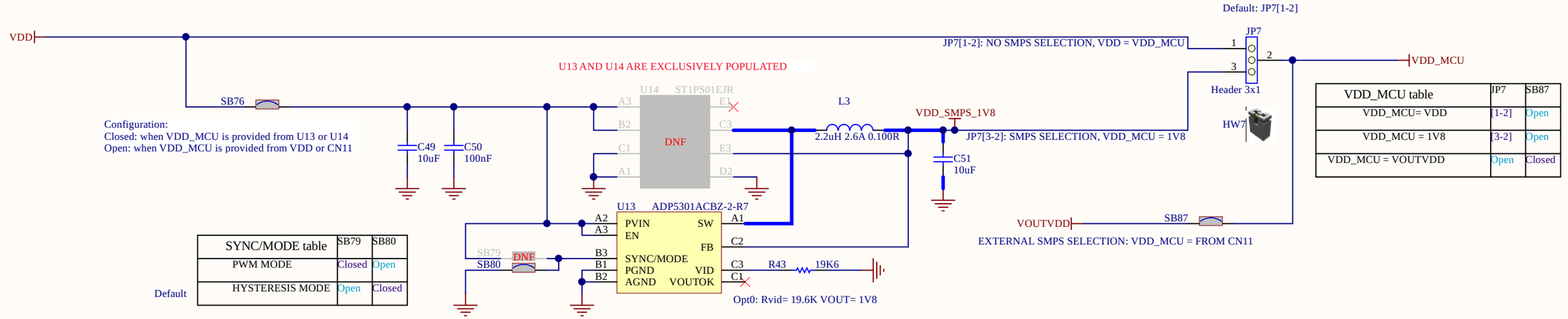
VDD_MCU_SELECTION



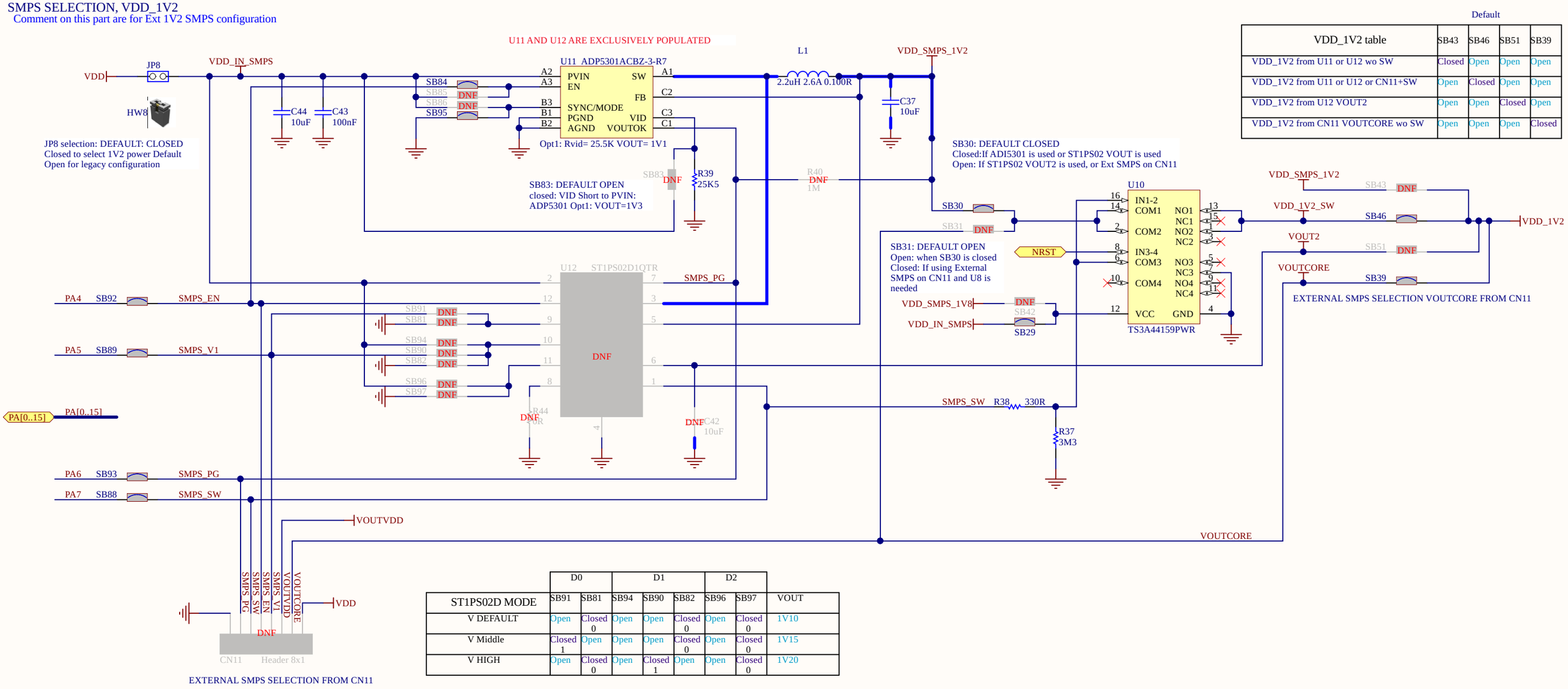
VDD_MCU table	JP7	SB87
VDD_MCU= VDD	[1-2]	Open
VDD_MCU = 1V8	[3-2]	Open
VDD_MCU = VOUTVDD	Open	Closed

SYNC/MODE table	SB79	SB80
PWM MODE	Closed	Open
HYSTERESIS MODE	Open	Closed

Default

SMPS SELECTION, VDD_1V2

Comment on this part are for Ext 1V2 SMPS configuration



VDD_1V2 table	SB43	SB46	SB51	SB39
VDD_1V2 from U11 or U12 wo SW	Closed	Open	Open	Open
VDD_1V2 from U11 or U12 or CN11+SW	Open	Closed	Open	Open
VDD_1V2 from U12 VOUT2	Open	Open	Closed	Open
VDD_1V2 from CN11 VOUTCORE wo SW	Open	Open	Open	Closed

Default

ST1PS02D MODE	D0 SB91	D0 SB81	D1 SB94	D1 SB90	D1 SB82	D2 SB96	D2 SB97	VOUT
V DEFAULT	Open	Closed 0	Open	Open	Closed 0	Open	Closed 0	1V10
V Middle	Closed 1	Open	Open	Open	Closed 0	Open	Closed 0	1V15
V HIGH	Open	Closed 0	Open	Closed 1	Open	Open	Closed 0	1V20

Title: **STM32 Power SMPS**			
Project: **NUCLEO64 ext-SMPS**			
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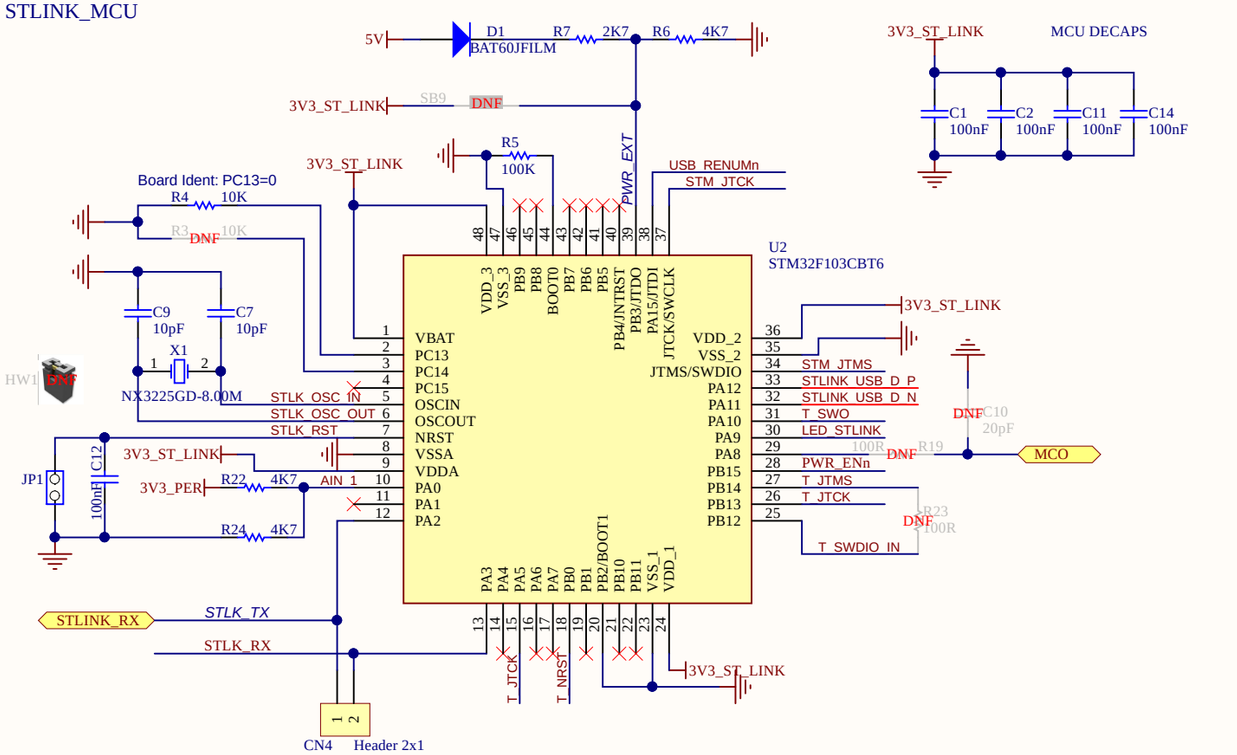
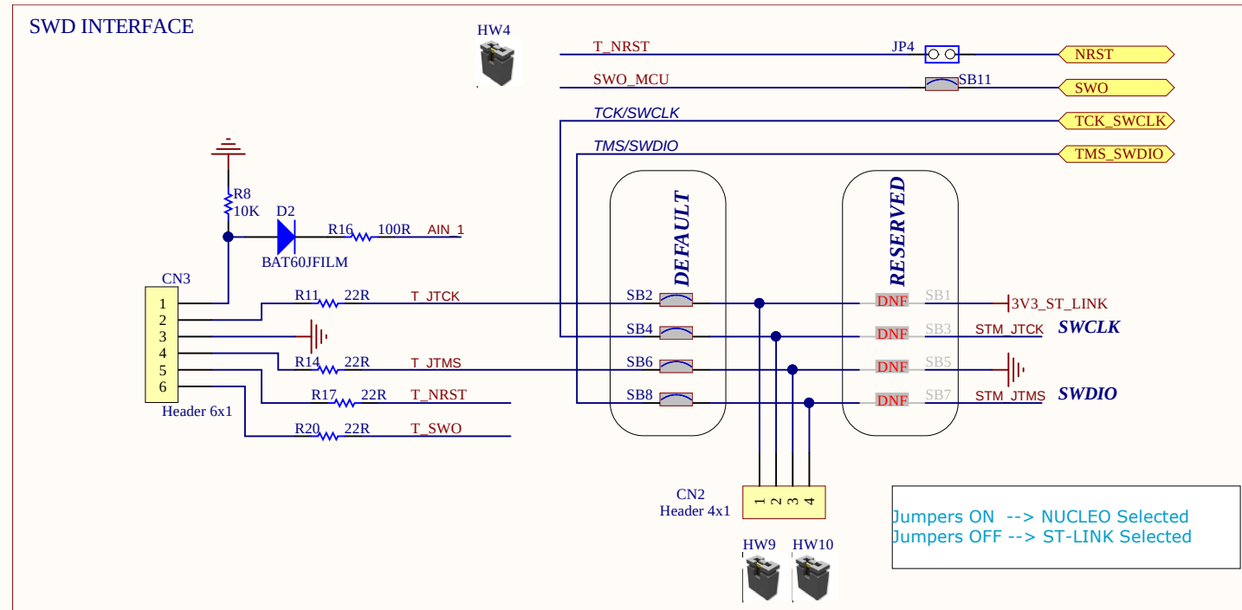
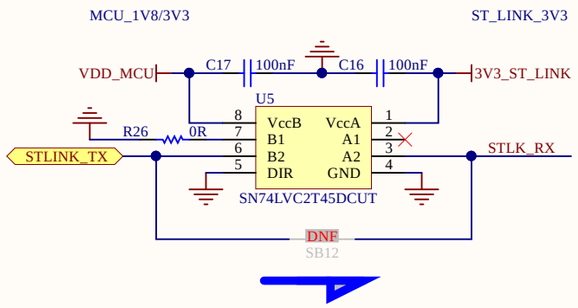
STLINK_MCU



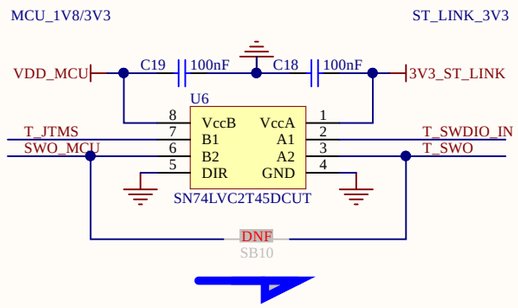
SWD INTERFACE



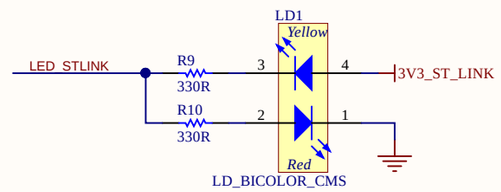
UART_TX LEVEL SHIFTER for MCU_1V8



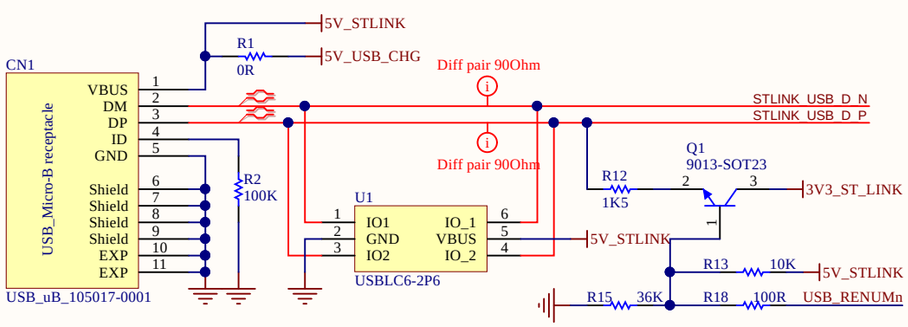
SW LEVEL SHIFTER FOR MCU_1V8



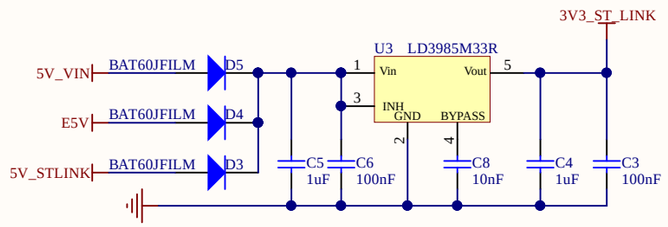
STLINK_LED: COM



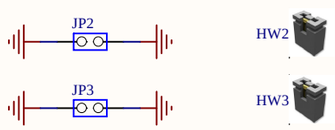
ST-LINK USB CONNECTOR



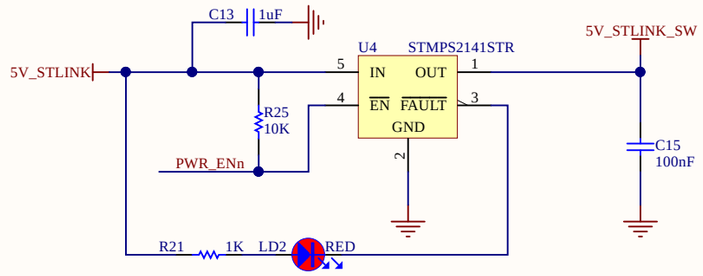
ST-LINK POWER 3V3 / 150mA



GND



USB 5V POWER SWITCH: 5V / 500mA



All the sheet are the CUTTABLE part on PCB

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