NUCLEO-L4XXZX

MB1312

Table of contents

Sheet 1: Project overview (this page)

Sheet 2: Top

Sheet 3: STM32 microcontroller I/Os

Sheet 4: STM32 microcontroller power

Sheet 5: Connectors

Sheet 6: USB

Sheet 7: Power_SMPS

Sheet 8: Power_board

Sheet 9: ST-Link/V2-1

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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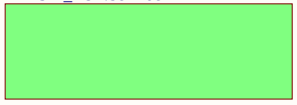
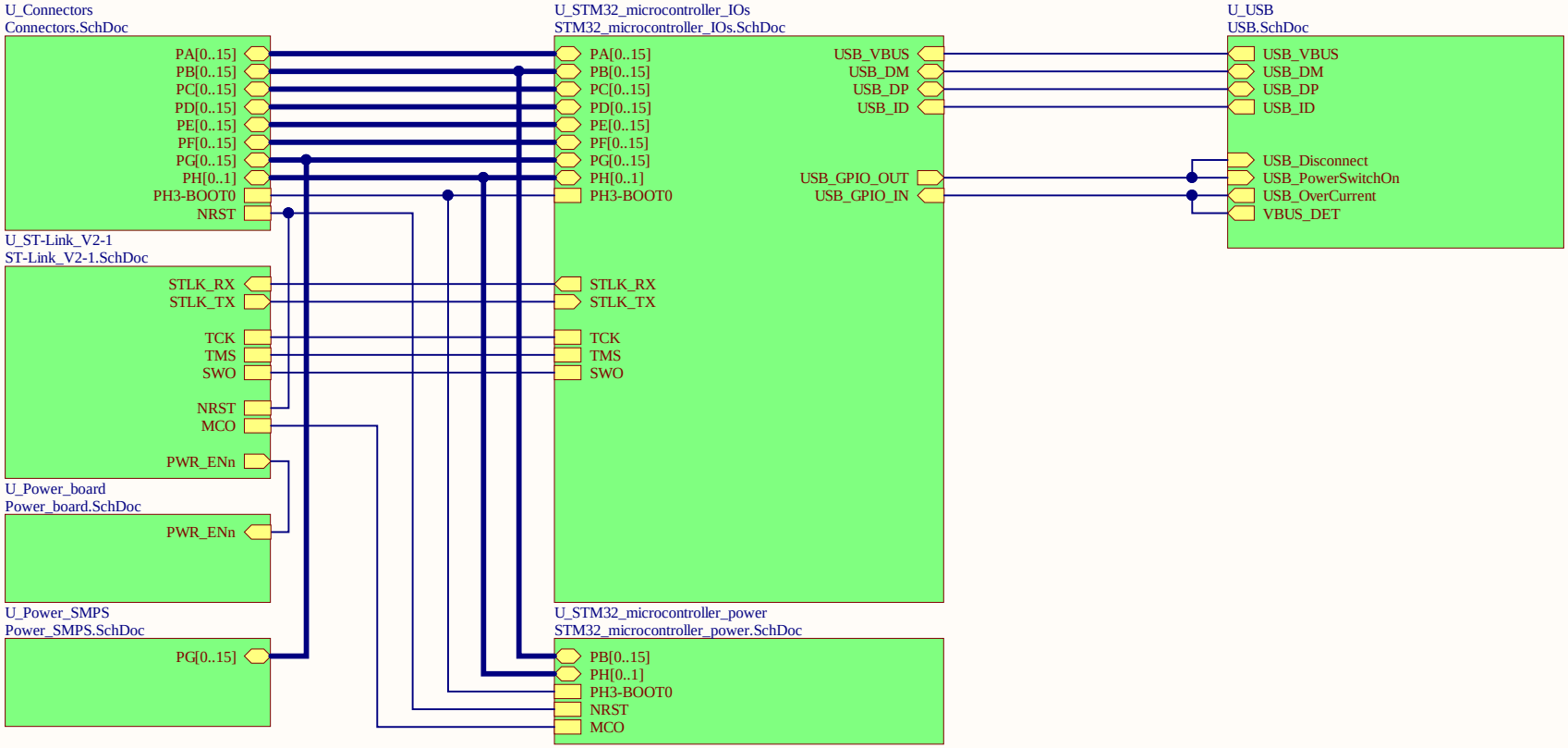
U_MB1312_TOP
MB1312_TOP.SchDoc



Title: **Project overview**		
Project: **NUCLEO-L4XXZX**		
Variant: L4P5ZG		
Revision: A-03		Reference: MB1312
Size: A4	Date: 07-NOV-19	Sheet: 1 of 9

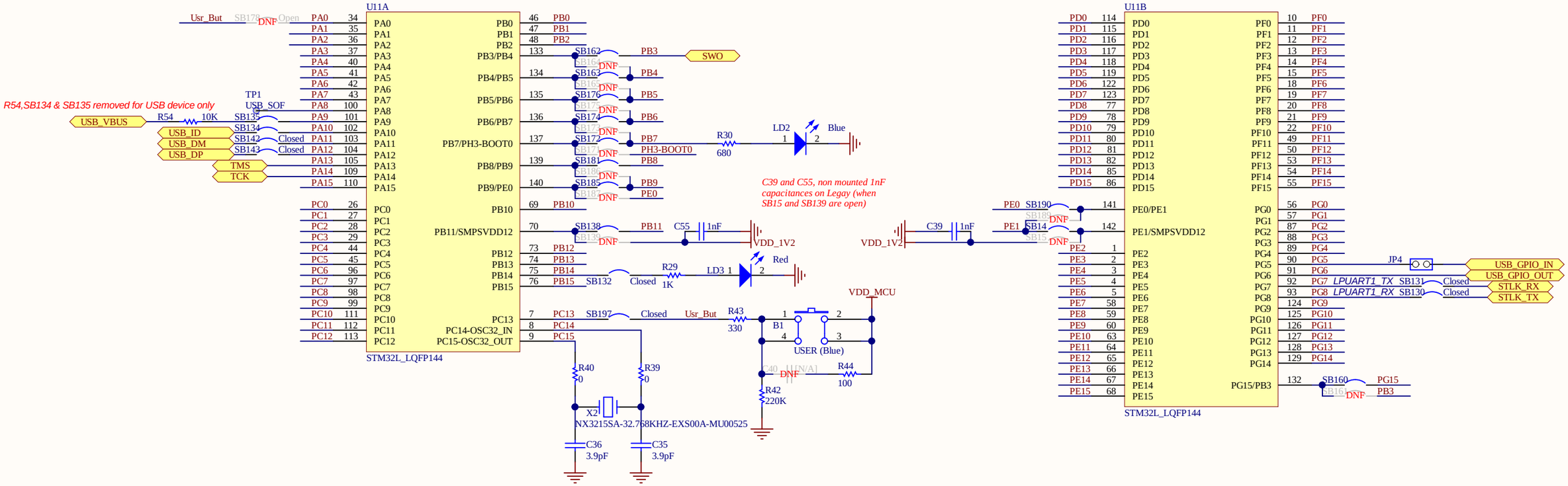
life.augmented

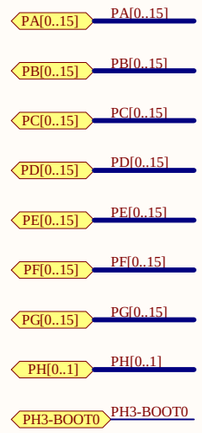


Note1: Text in italic placed on a wire does not correspond to net name. It just helps to identify rapidly Arduino's signal related to this wire.

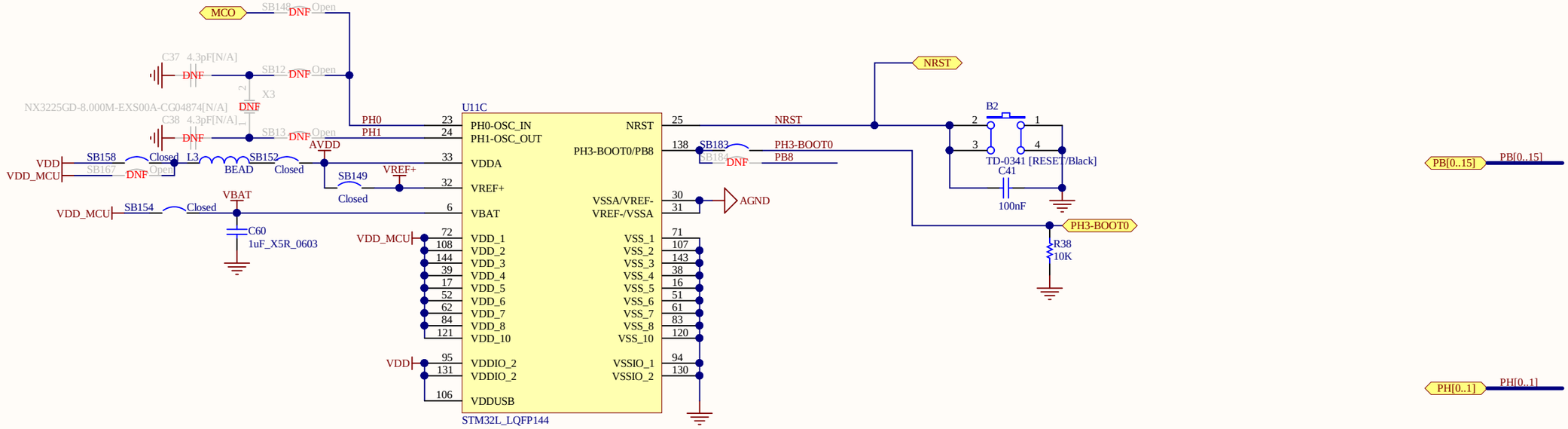
Title: **MB1312_TOP**		
Project: **NUCLEO-L4XXZX**		
Variant: L4P5ZG		
Revision: A-03		Reference: MB1312
Size: A4	Date: 07-NOV-19	Sheet: 2 of 9

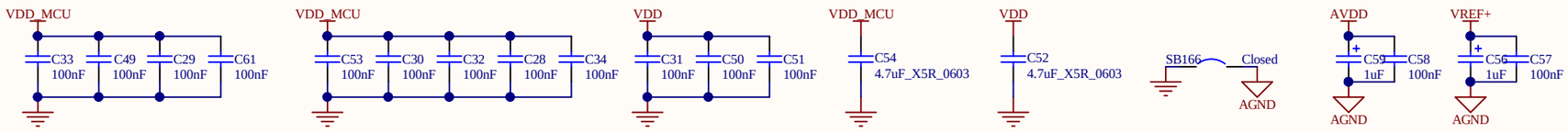
life.augmented





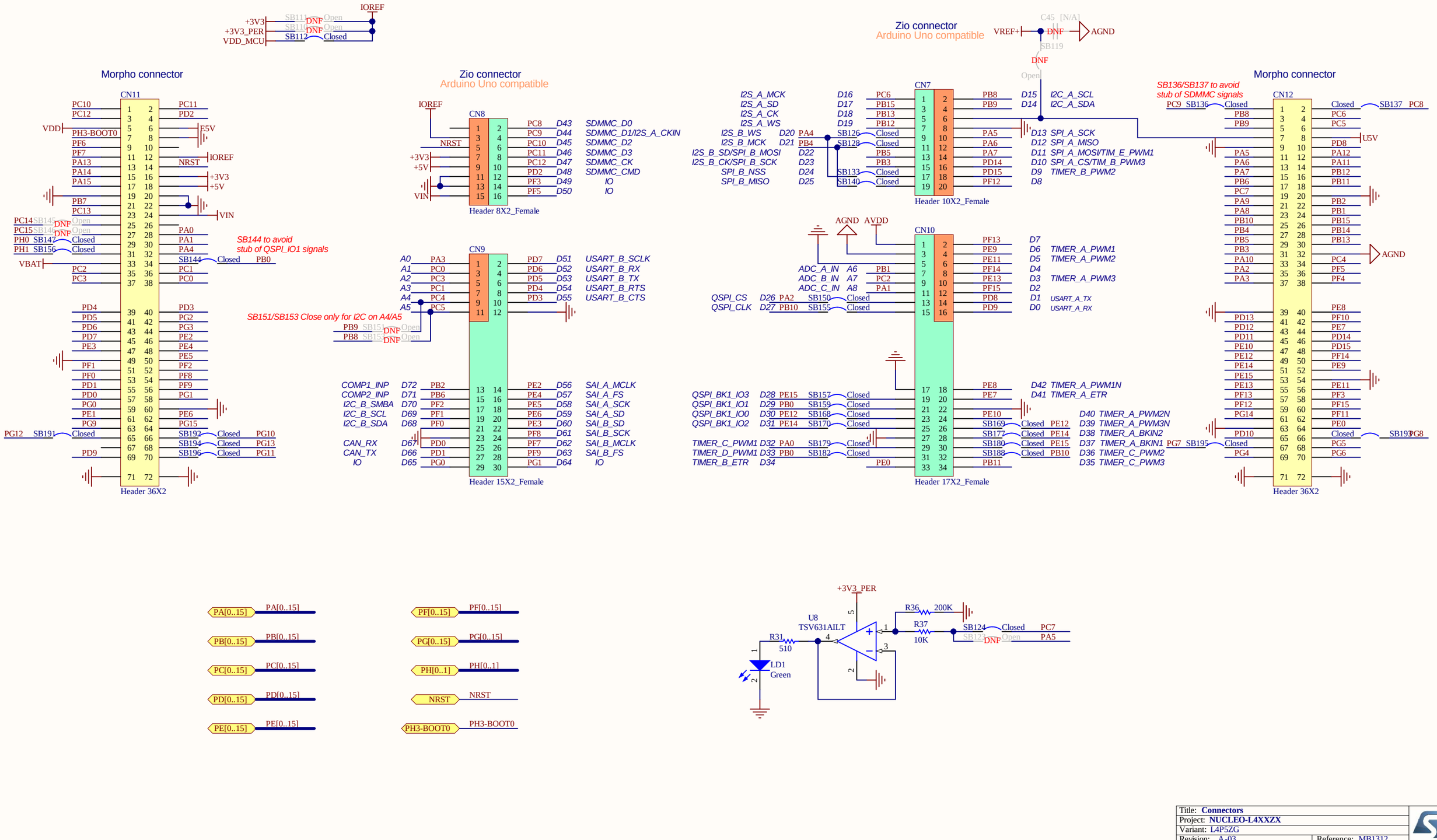
Title: **STM32_microcontroller_IOs**		
Project: **NUCLEO-L4XXZX**		
Variant: L4P5ZG		
Revision: A-03		Reference: MB1312
Size: A3	Date: 07-NOV-19	Sheet: 3 of 9



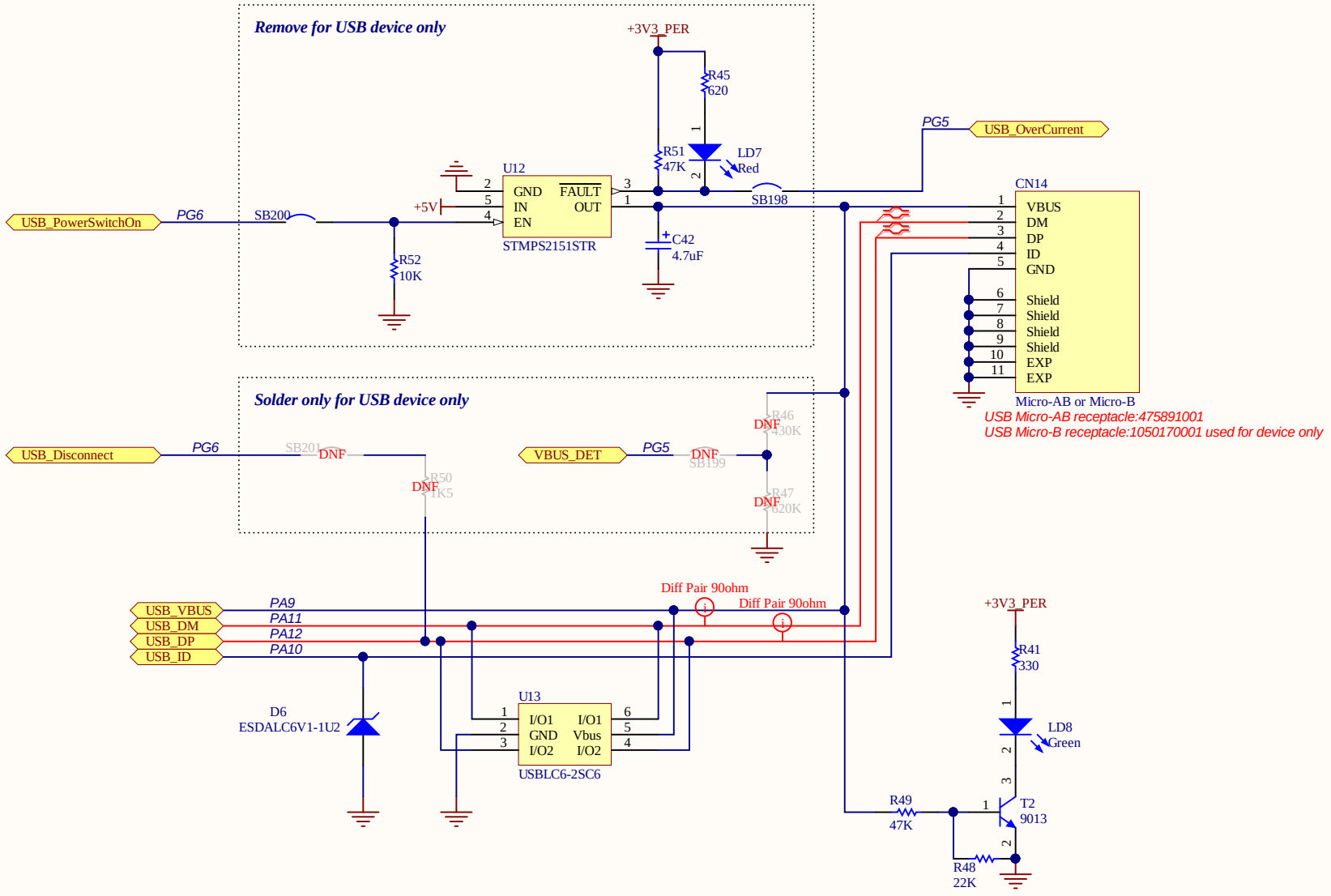


Title: **STM32_microcontroller_power**		
Project: **NUCLEO-L4XXZX**		
Variant: L4P5ZG		
Revision: A-03		Reference: MB1312
Size: A3	Date: 07-NOV-19	Sheet: 4 of 9

Extension connectors



Title: **Connectors**			
Project: **NUCLEO-L4XXZX**			
Variant: L4P5ZG			
Revision: A-03		Reference: MB1312	
Size: A3	Date: 07-NOV-19	Sheet: 5 of 9	



Title: **USB**		
Project: **NUCLEO-L4XXZX**		
Variant: L4P5ZG		
Revision: A-03		Reference: MB1312
Size: A4	Date: 07-NOV-19	Sheet: 6 of 9

life.augmented

Componants mounted based on different board reference

SB122 Closed

VDD

SB121 Open DNF

U10 ST1PS01EJR

A3 B2 C1 A1 E1 C3 E3 D2 DNF

L2 2.2uH[VLS252010HBX-2R2M-1] DNF

SB127 DNF Open

VDD_MCU

DNF C25 10uF DNF C24 100nF

U10 and U16 are exclusive

DNF C47 10uF

DNF SB19 Open

U16 ADP5301ACBZ-2-R7

DNF SB120 Open

A2 A3 B3 B2 A1 B1 C2 C1 C3 DNF

DNF SB125 Closed

DNF R35 49.6K[1%]

PG[0..15]

PG[0..15]

SMPS_V1 PG10

SMPS_EN PG11

SMPS_PG PG12

SMPS_SW PG13

SB16 DNF

SB18 DNF

SB17 DNF

CN13 DNF Header 4X2[N/A]

VDD VOUTVDD VOUTCORE

DNF SB8 DNF SB1

SB8
Closed: Default
Open: If using External SMPS on CN13

SB1
Closed:Default
Open:
If external switch (U7) is needed

R34 DNF 1M

R32 DNF 33K

SB3
Open: Default
Closed: If using External SMPS on CN13 and U7 is not needed

U15 ADP5301ACBZ-2-R7

SB129 DNF

A2 A3 B3 B2 A1 B1 C2 C1 C3 DNF

DNF SB116

DNF SB114

DNF C22 10uF DNF C23 100nF

C48 DNF 100nF

Default volatge will be Vout = 1.2V BUT Some board to be equiped with ADP5301_Opt1 and R53=25.5K for Vout = 1.1V

L1 2.2uH[VLS252010HBX-2R2M-1] DNF

DNF C21 10uF

SB4
Open: Default
Closed: If using External SMPS on CN13 and U7 is needed

U7 STG3684AUTR

DNF SB4

DNF SB3

VDD_1V2

DNF SB2

SB2
Closed:Default
Open:
If external switch (U7) is needed

SB113 DNF

DNF SB53 11.8K[1%]

SB7 DNF

SB7
Closed:If ADI5301(U15) is used or ST1PS02(U9) VOUT is used
Open: If ST1PS02(U9) VOUT2 is used

U9 and U15 are exclusively populated

Solder bridges default setting

ADI5301(U15):
Closed: SB1, SB2, SB7, SB8, SB16, SB17, SB18, SB114
Open: SB3, SB4, SB9, SB10, SB11, SB113, SB115, SB116, SB117, SB118, SB129

ST1PS02(U9):
Closed: SB8, SB9, SB11, SB16, SB17, SB18, SB117
Open: SB1, SB2, SB3, SB4, SB7, SB10, SB113, SB114, SB115, SB116, SB118, SB129

Mode	SB10	SB118	SB115	SB117	SB9	Volt	Ivdd
ST1PS02D							
Default	*Open*	*Open*	*Open*	*Closed*	*Closed*	*1.25*	*na*
DualVlow	*Closed*	*Open*	*Closed*	*Open*	*Open*	*1.05/1.15*	*50*
DualVhi	*Open*	*Closed*	*Open*	*Open*	*Closed*	*1.05/1.25*	*100*

U9 ST1PS02D1QTR

DNF SB117

SB10 DNF

SB118 DNF

DNF SB115 DNF SB9

DNF R33 0

DNF C46 10uF[N/A]

DNF SB11

SB11:
Closed: If ST1PS02 (U9) VOUT2 is used
Open: If ADI5301(U15) is used or ST1PS02(U9) VOUT is used

Title: **Power_SMPS**			
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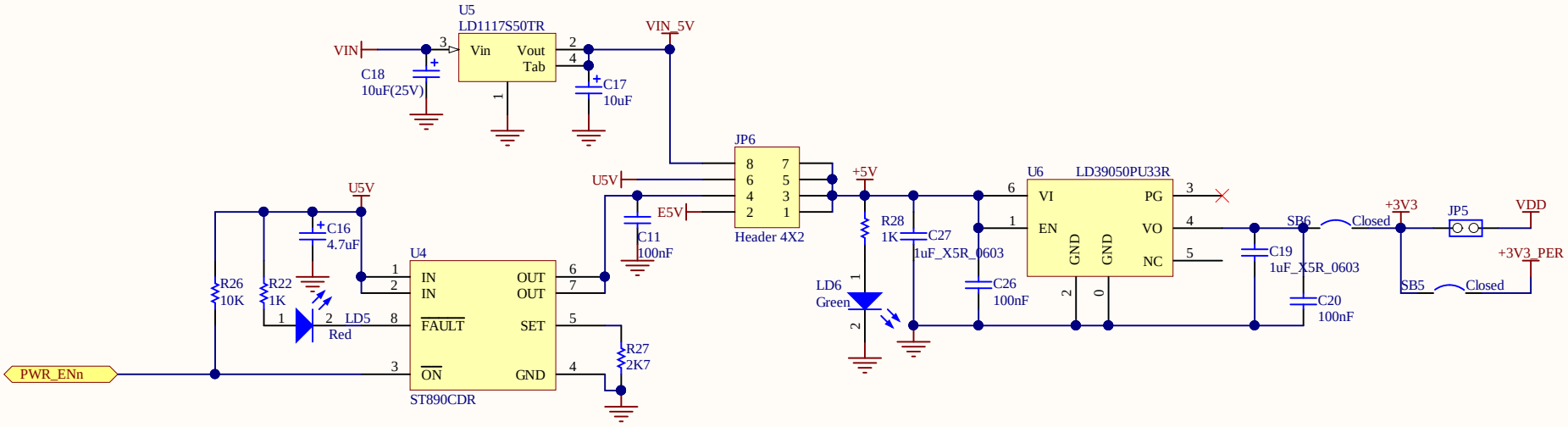
Revision: A-03		Reference: MB1312	
Size: A3	Date: 07-NOV-19	Sheet: 7 of 9	



Power Switch to supply +5V
from STLINK USB

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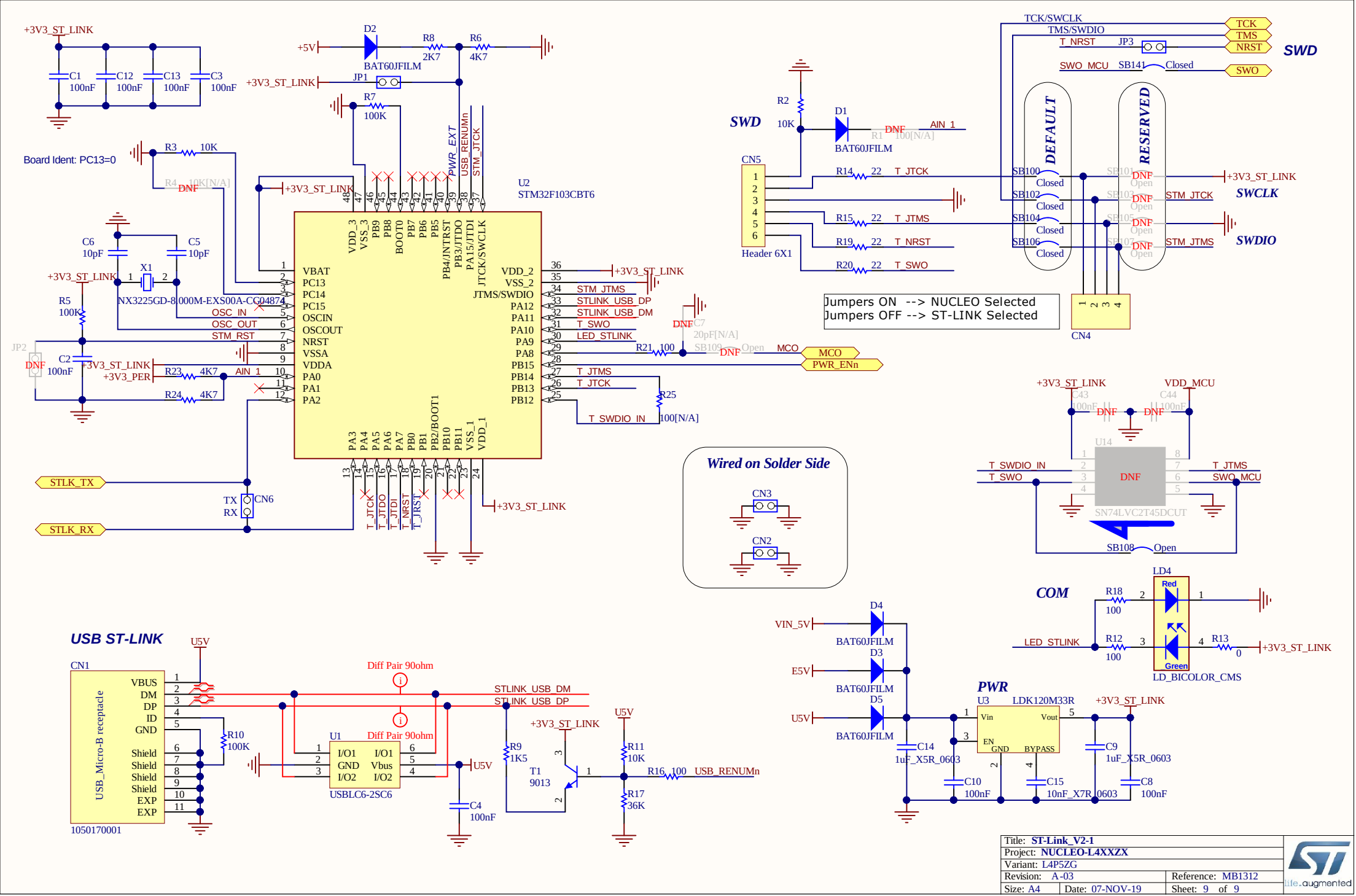
Size: A4	Date: 07-NOV-19	Sheet: 8 of 9

life.augmented



Title: **ST-Link_V2-1**		
Project: **NUCLEO-L4XXZX**		
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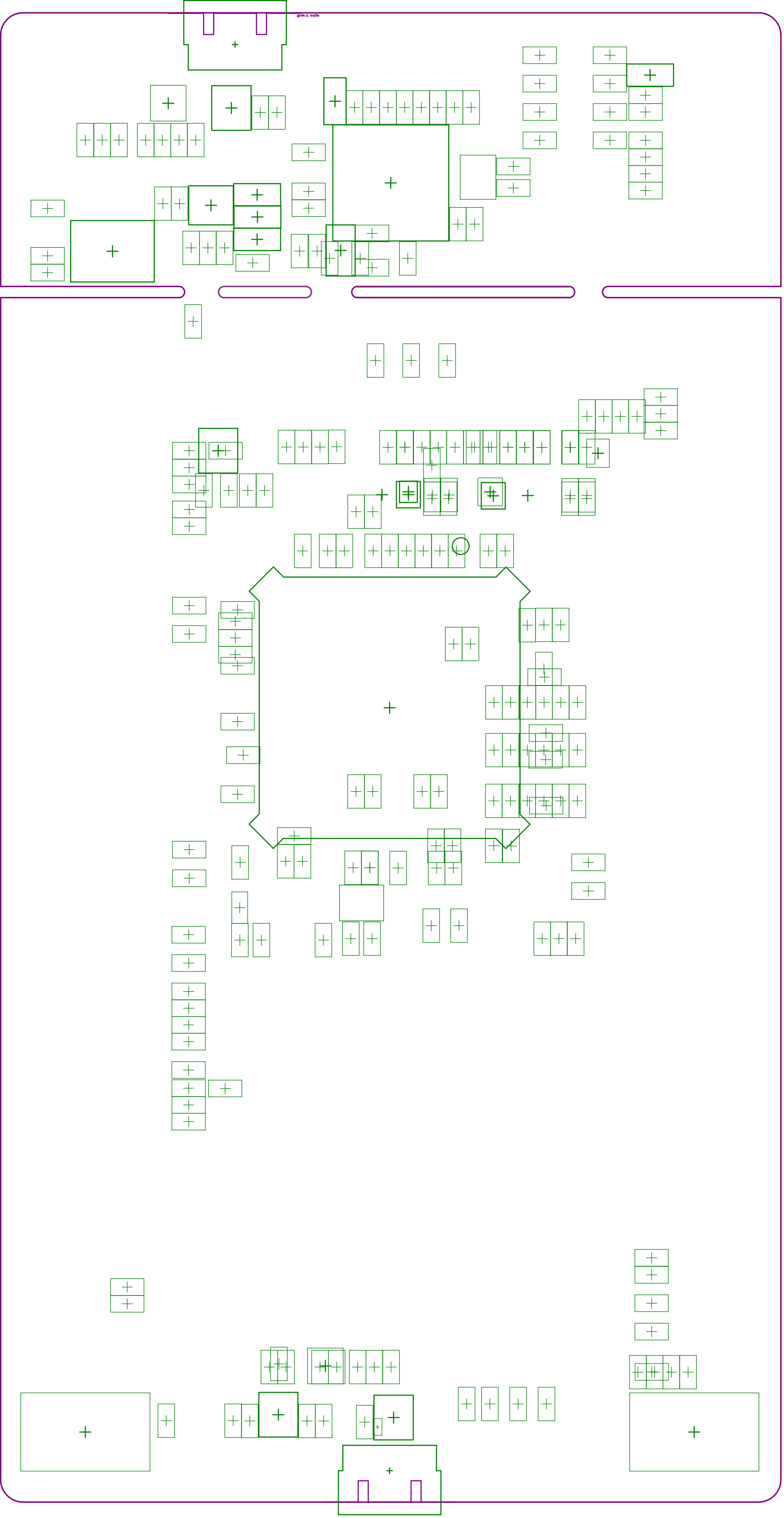
Revision: A-03		Reference: MB1312
Size: A4	Date: 07-NOV-19	Sheet: 9 of 9

life.augmented

Board edge