

Nucleo144 H7 SMPS with STLINK V3

MB1363

H755ZIQ

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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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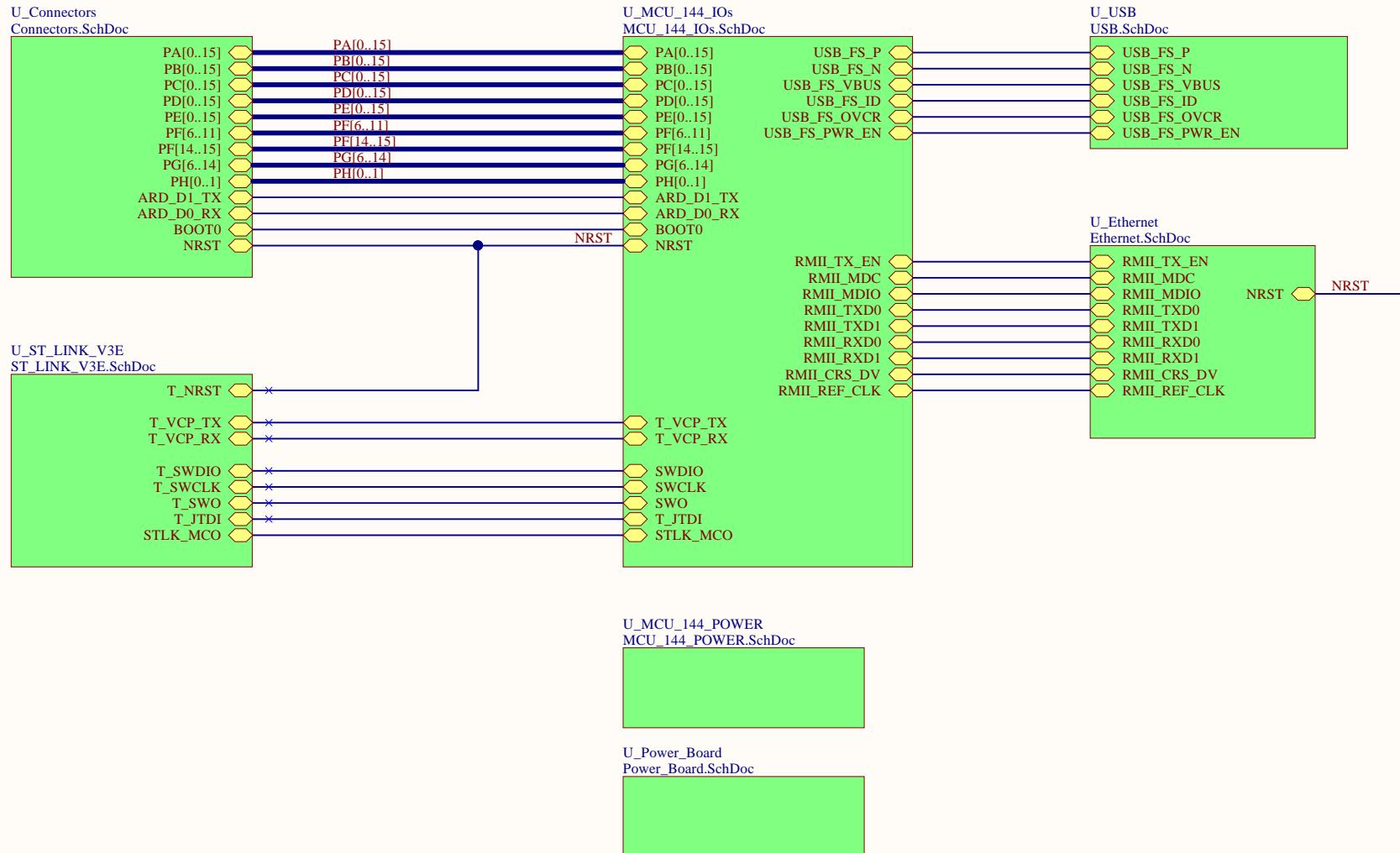
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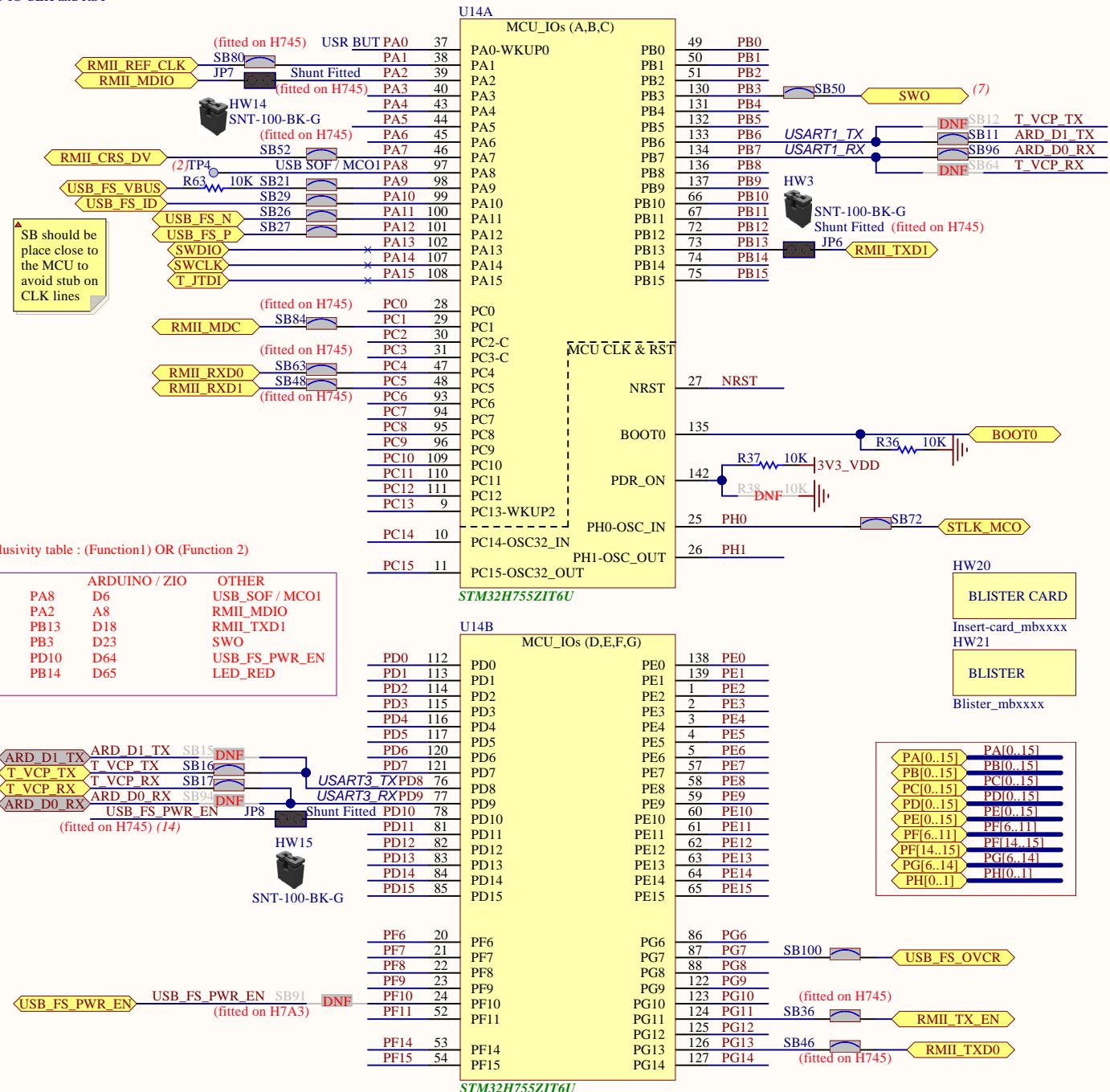
U_MB1363.Top
MB1363.Top.SchDoc



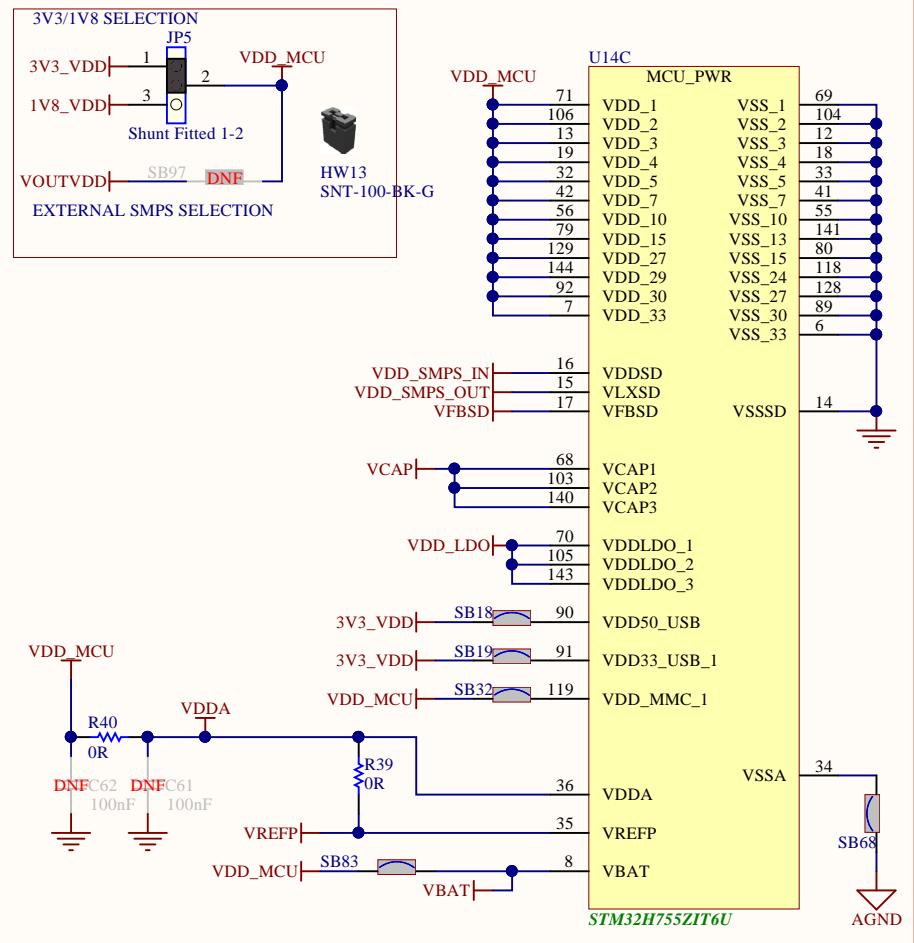
Title: Project overview		 life... auamentec	
Project: Nucleo144 H7 SMPS with STLINK V3			
Variant: H755ZIQ			
Revision: C-01	Reference: MB1363		
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MCU IO CLK and RST



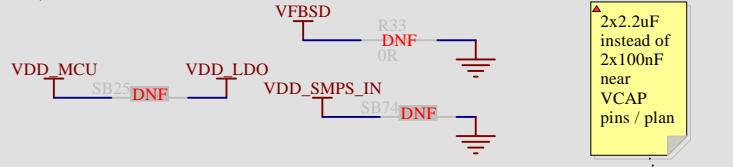
MCU PWR SUPPLIES



SMPS MCU Supply Config

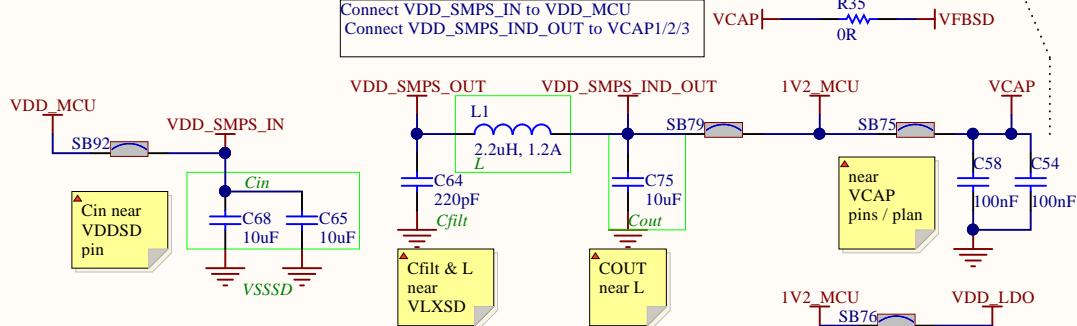
Supply Config 1 : LDO only (SMPS OFF, LDO ON)

Disconnect 3V3_SMPS_IN from 3V3_MCU
Connect 3V3_SMPS_IN to GND
Connect VDD_SMPS_IND_OUT to GND
Connect VDD_LDO to 3V3_MCU
2x 2.2uF near VCAP pins/pins



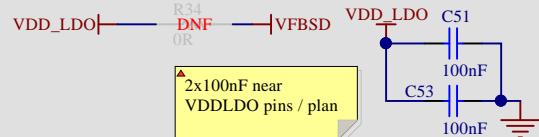
Supply Config 2 : Internal SMPS only (SMPS ON, LDO OFF)

Default config



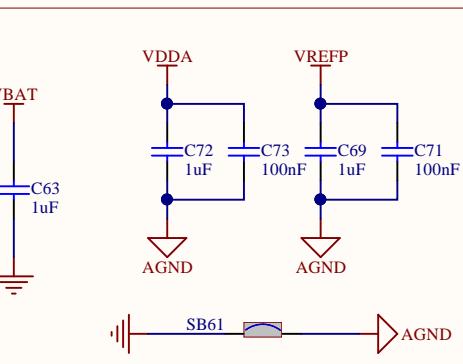
Supply Config 3 : SMPS & LDO cascaded (SMPS & LDO ON)

Compared to config 2 :
Disconnect VDD_SMPS_IND_OUT from VCAP
Connect VDD_SMPS_IND_OUT to VDD_LDO
Add 2x100nF near VDDLDO pins/plans
Add 2x2.2uF near VCAP pins/plans (see config 1)



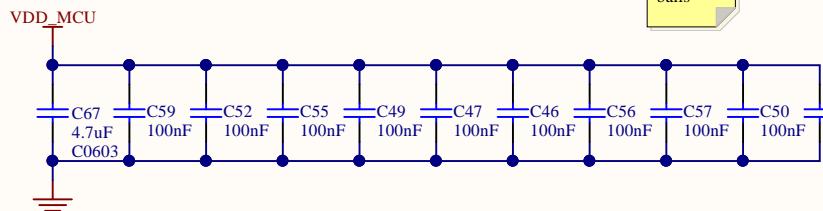
Supply Config 5 : external SMPS

Disconnect 1V2_MCU from VDD_SMPS_IND_OUT
Connect 1V2_MCU to 1V2_VOUTCORE (Connectors page)



MCU DECAPS

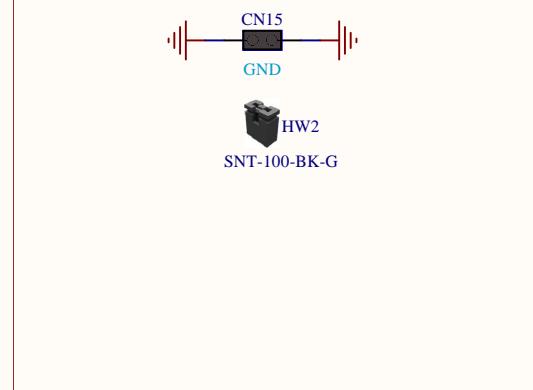
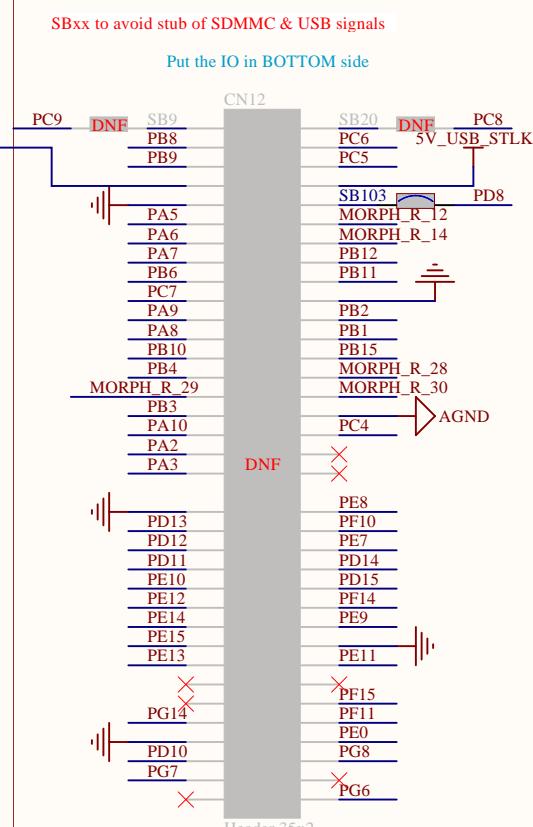
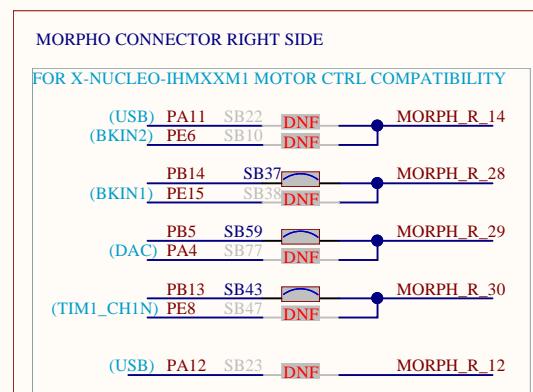
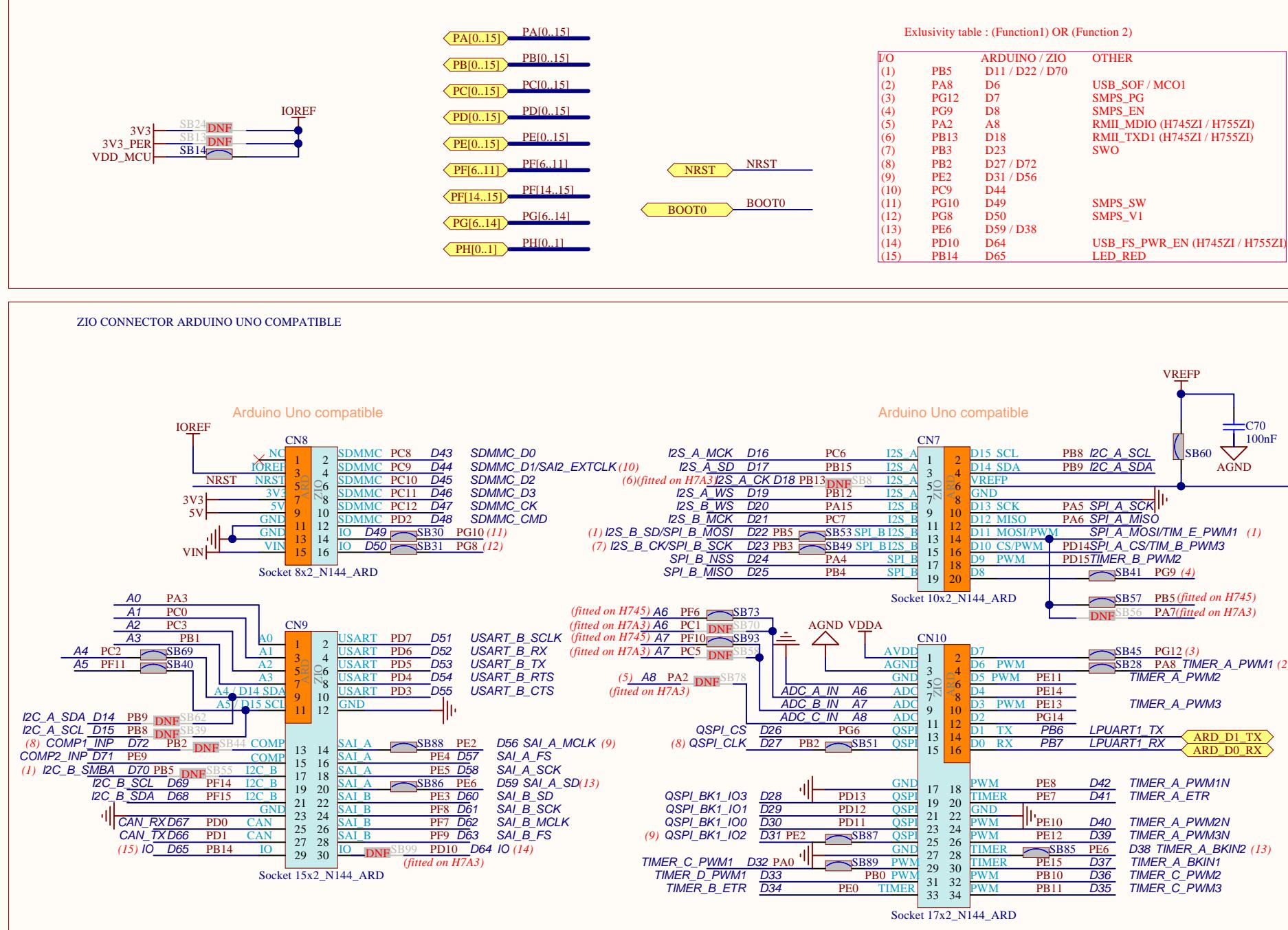
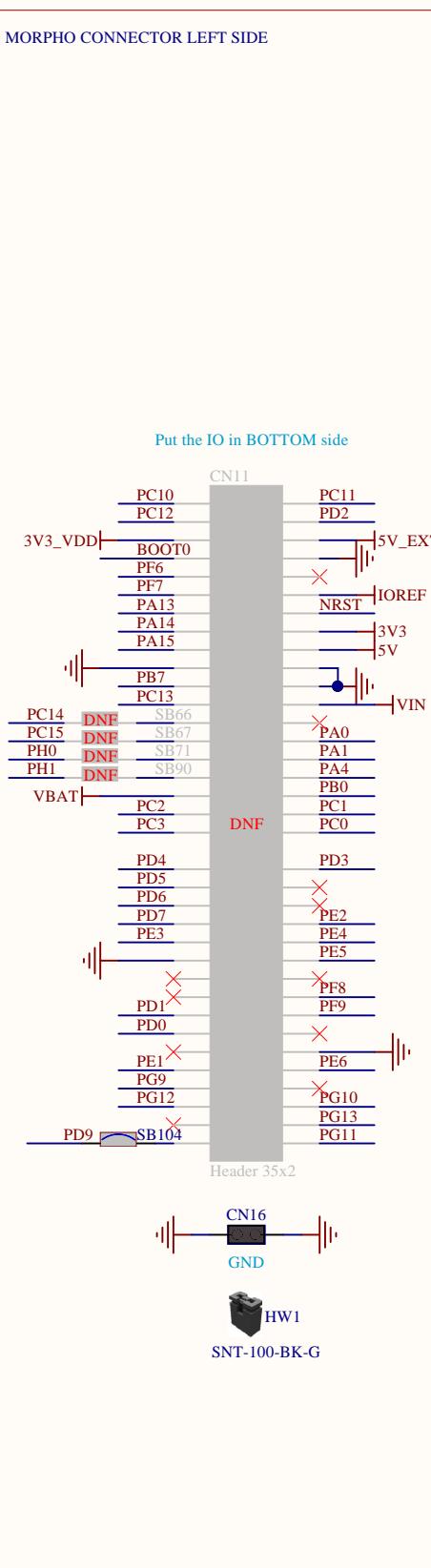
Ceramic capacitor (Low ESR, ESR<1ohm)



Title: MCU 144 POWER	
Project: Nucleo144 H7 SMPS with STLINK V3	
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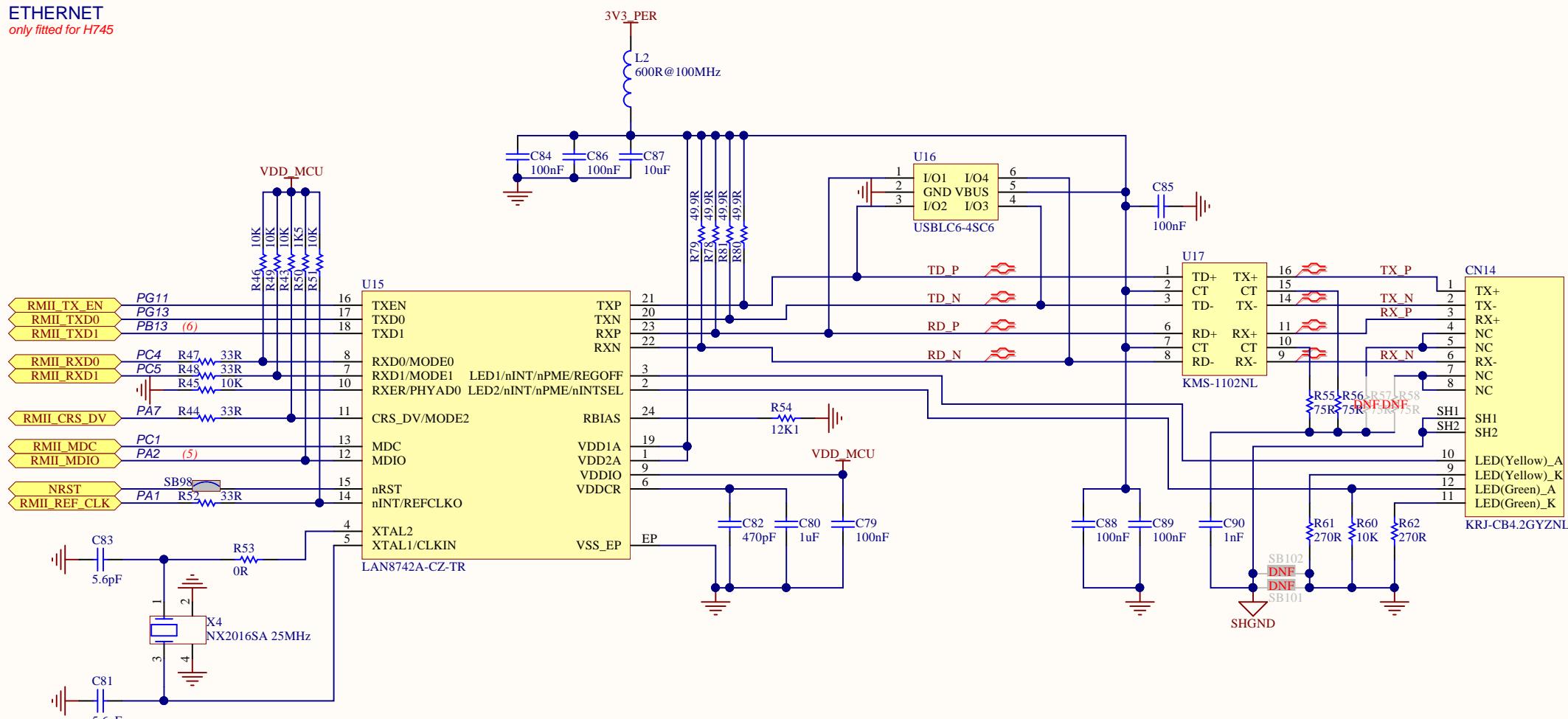


EXTENSION CONNECTORS, MCU INTERFACES



Title: **Connectors**
Project: **Nucleo144 H7 SMPS with STLINK V3**
Variant: **H755ZIQ**
Revision: **C-01** Reference: **MB1363**
Size: **A3** Date: **14-FEB-19** Sheet: **5 of 9**
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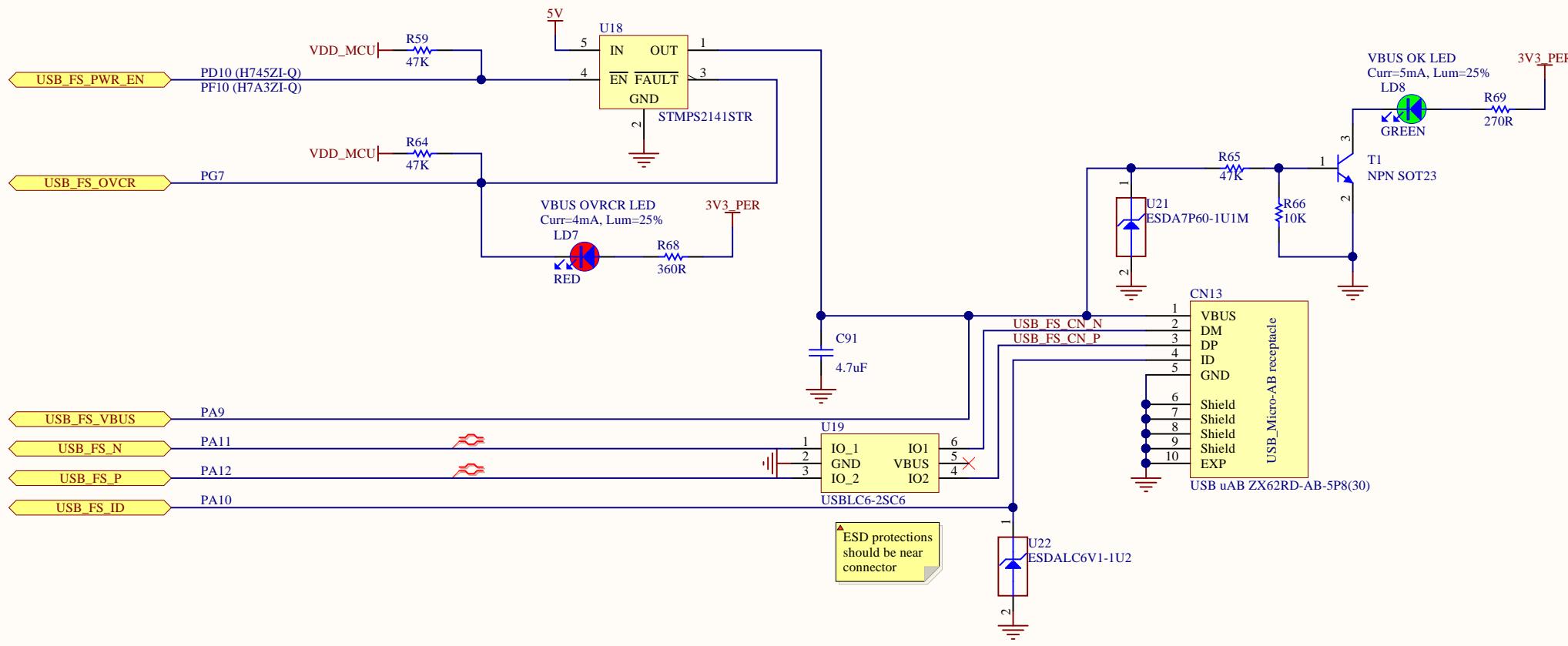
ETHERNET
only fitted for H745



Title: Ethernet PHY with RJ45 connector	
Project: Nucleo144 H7 SMPS with STLINK V3	
Variant: H755ZIQ	
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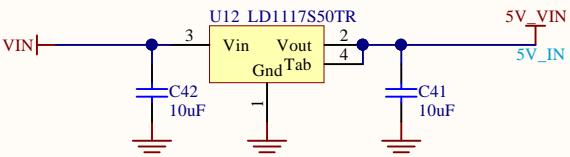
USB FS



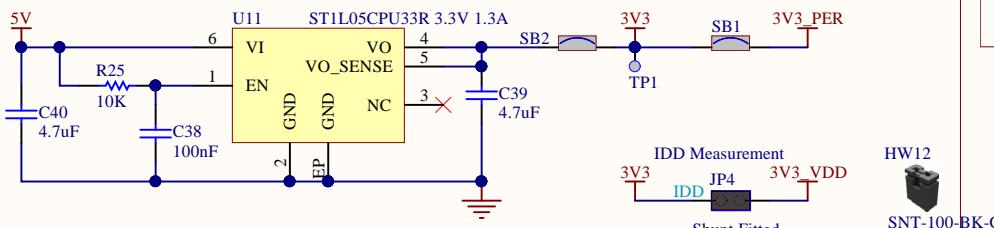
Title: USB	
Project: Nucleo144 H7 SMPS with STLINK V3	
Variant: H755ZI	
Revision: C-01	Reference: MB1363
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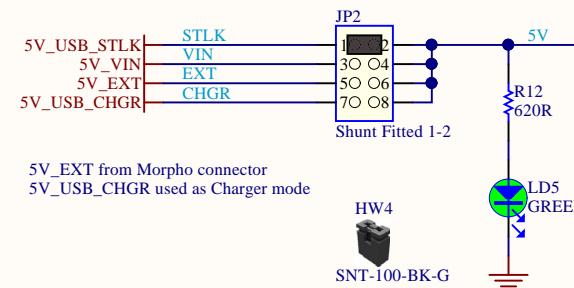
VIN / 5V PWR



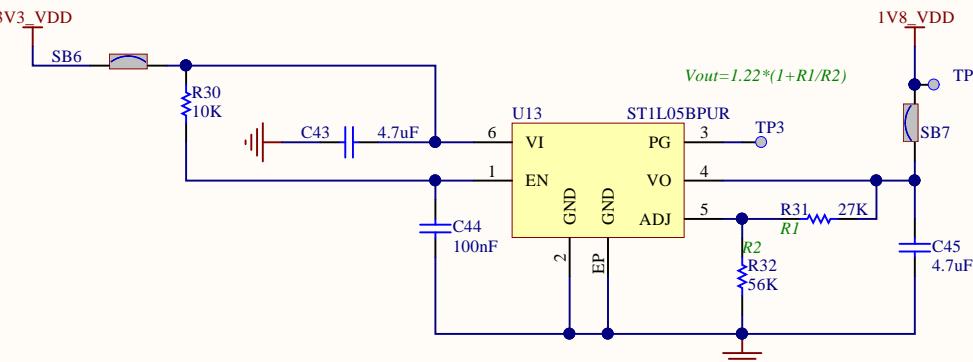
3V3 PWR

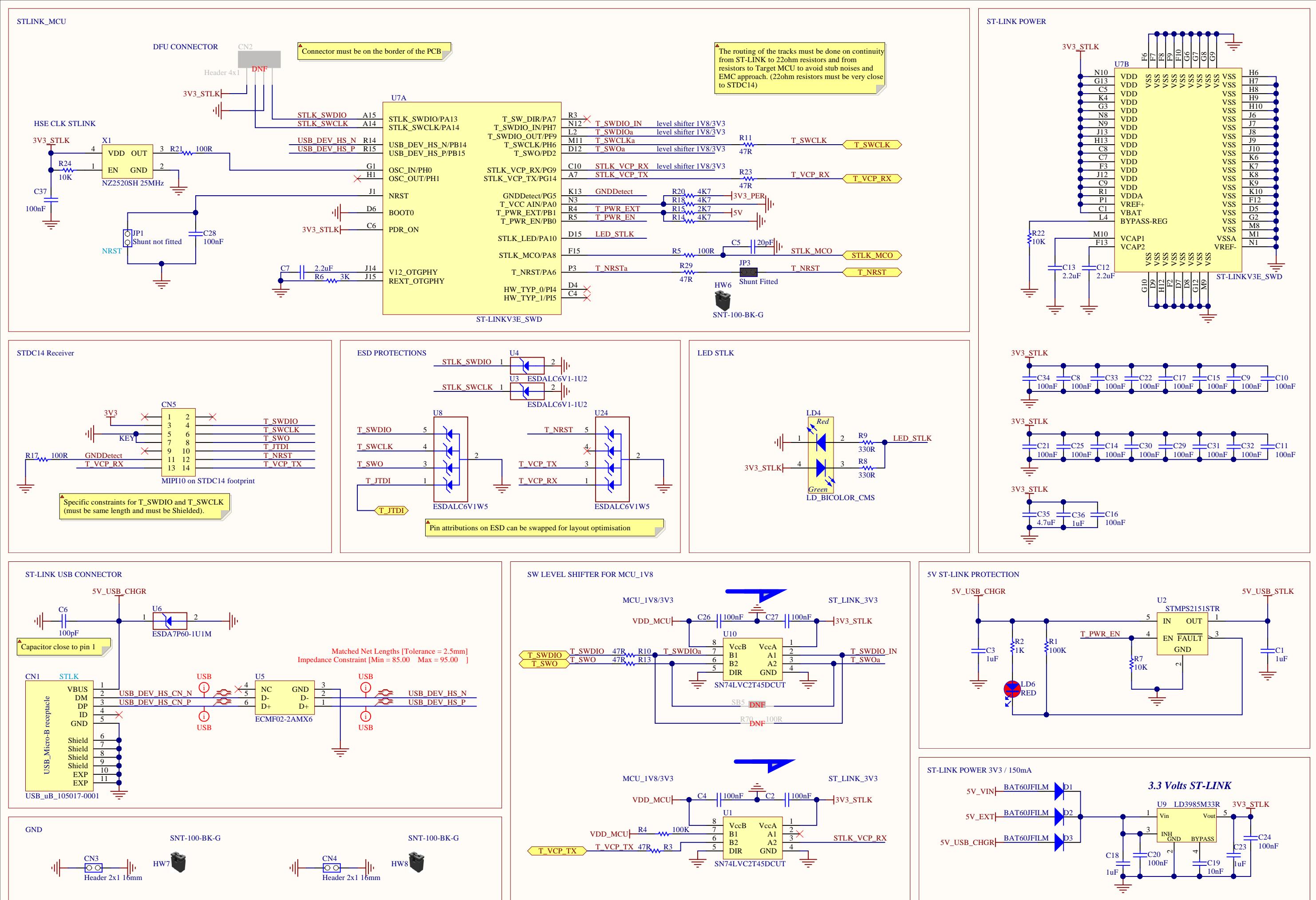


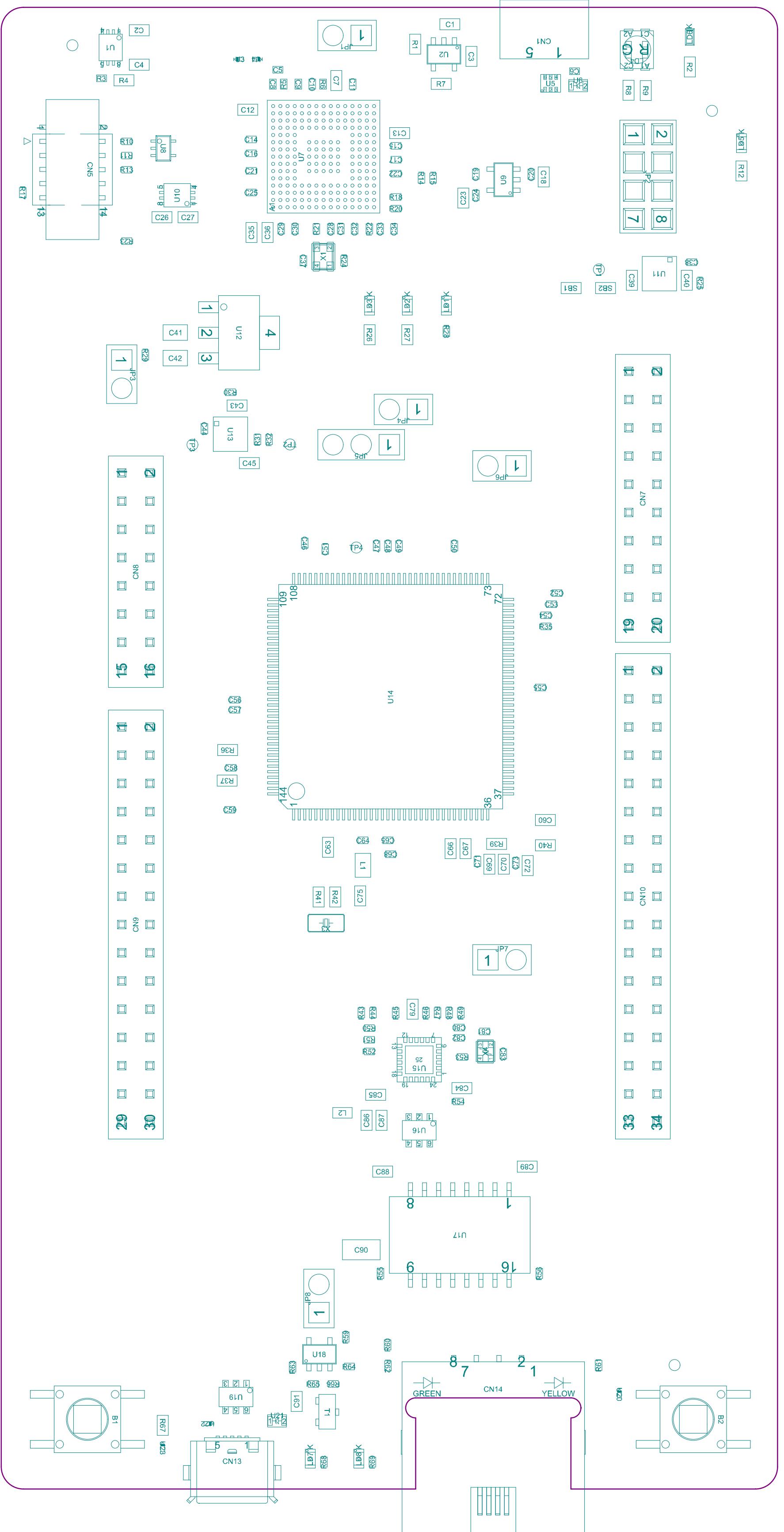
5V PWR SELECTION



1V8 PWR







Project: Nucleo144 H7 SMPS with STLINK V3

Layer: M14-Top Assembly

Gerber: .GM14

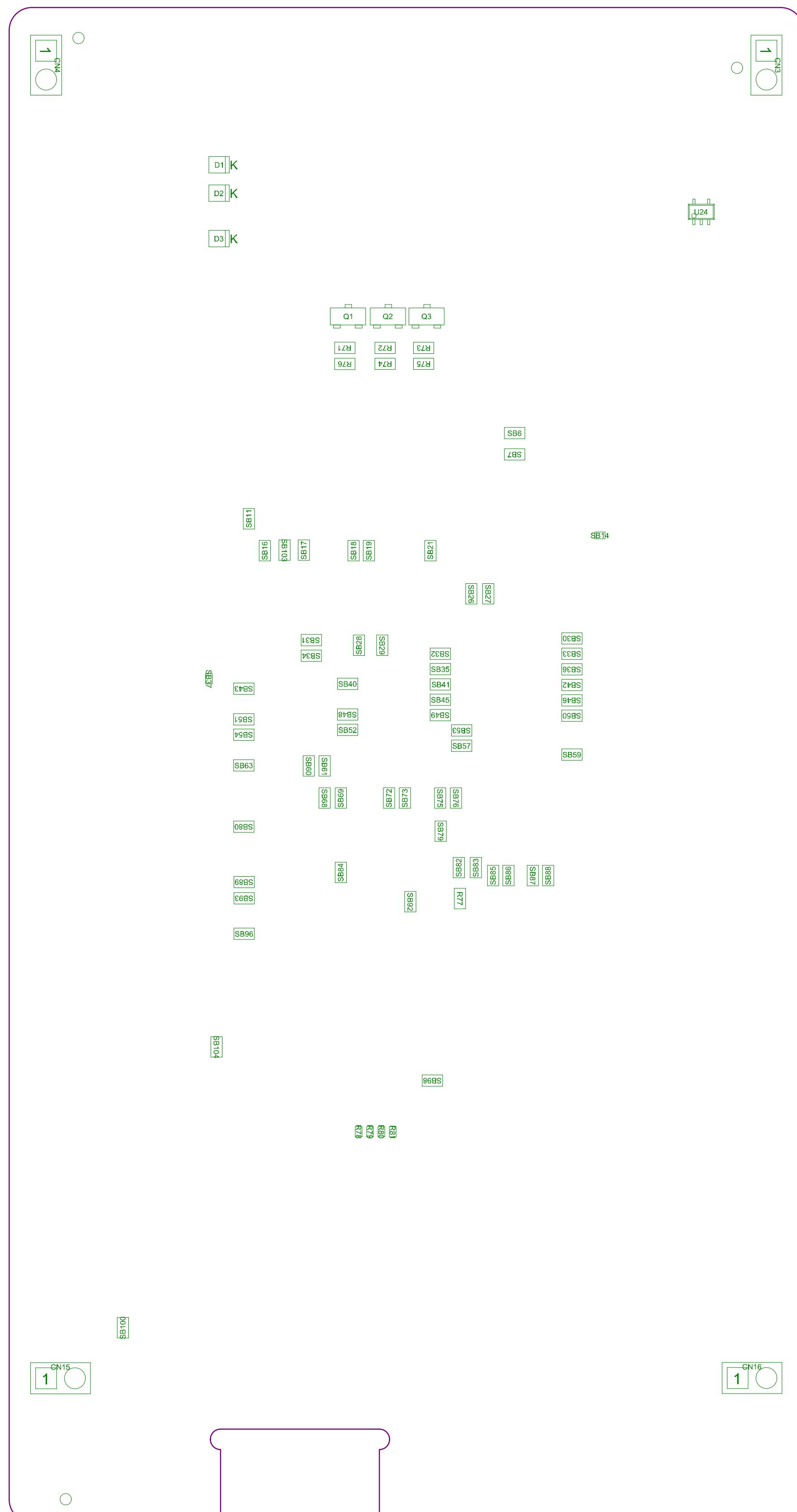
Variant: H755ZIQ

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Rev: C





Project: Nucleo144 H7 SMPS with STLINK V3	
Layer: M15-Bottom Assembly	Gerber: .GM15
Variant: H755ZIQ	Ref: MB1363
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