

STM32N6 Nucleo-144

MB1940

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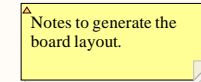
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Legend

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

Text to be added to silkscreen.

Warning text.



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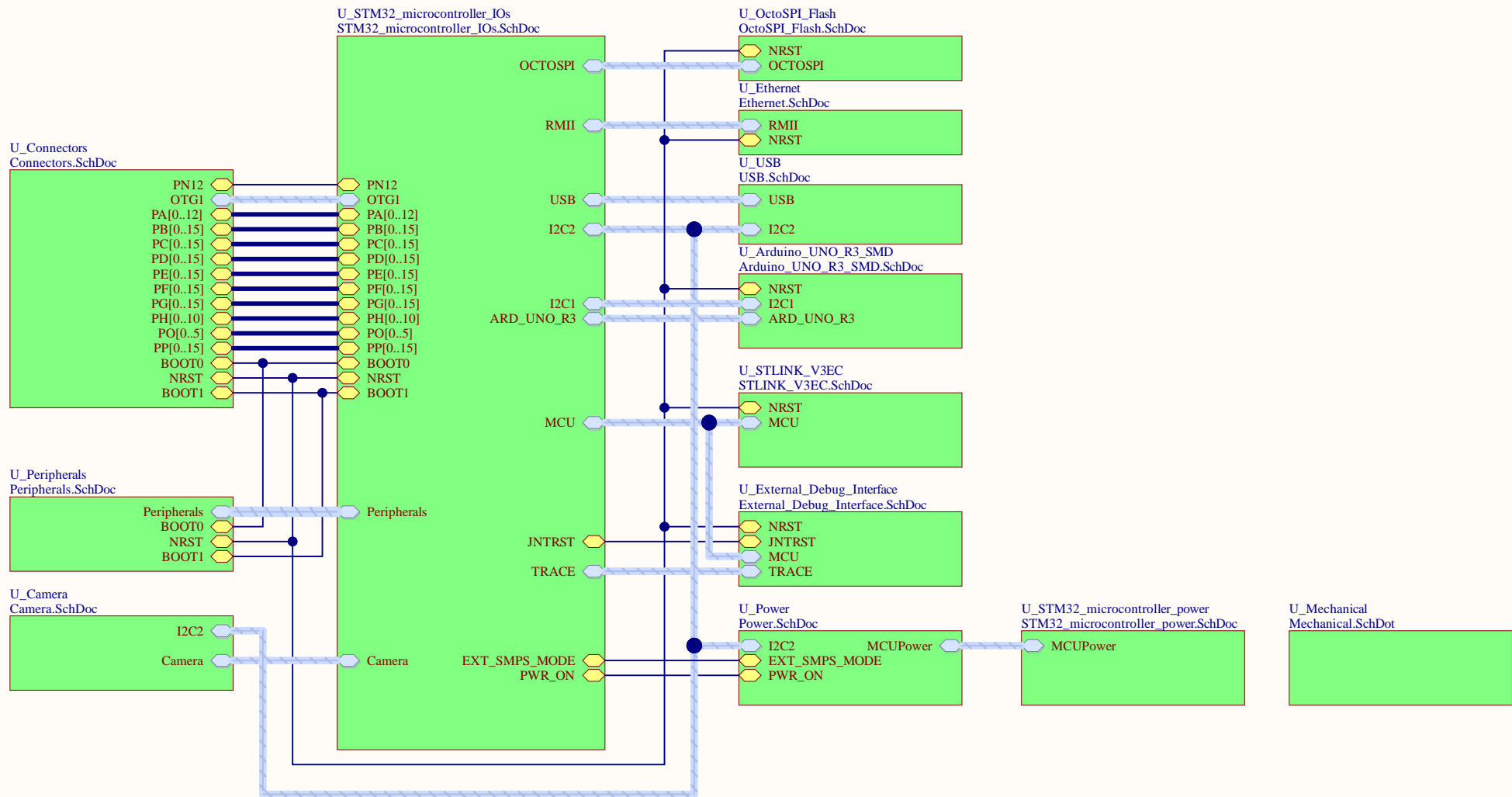
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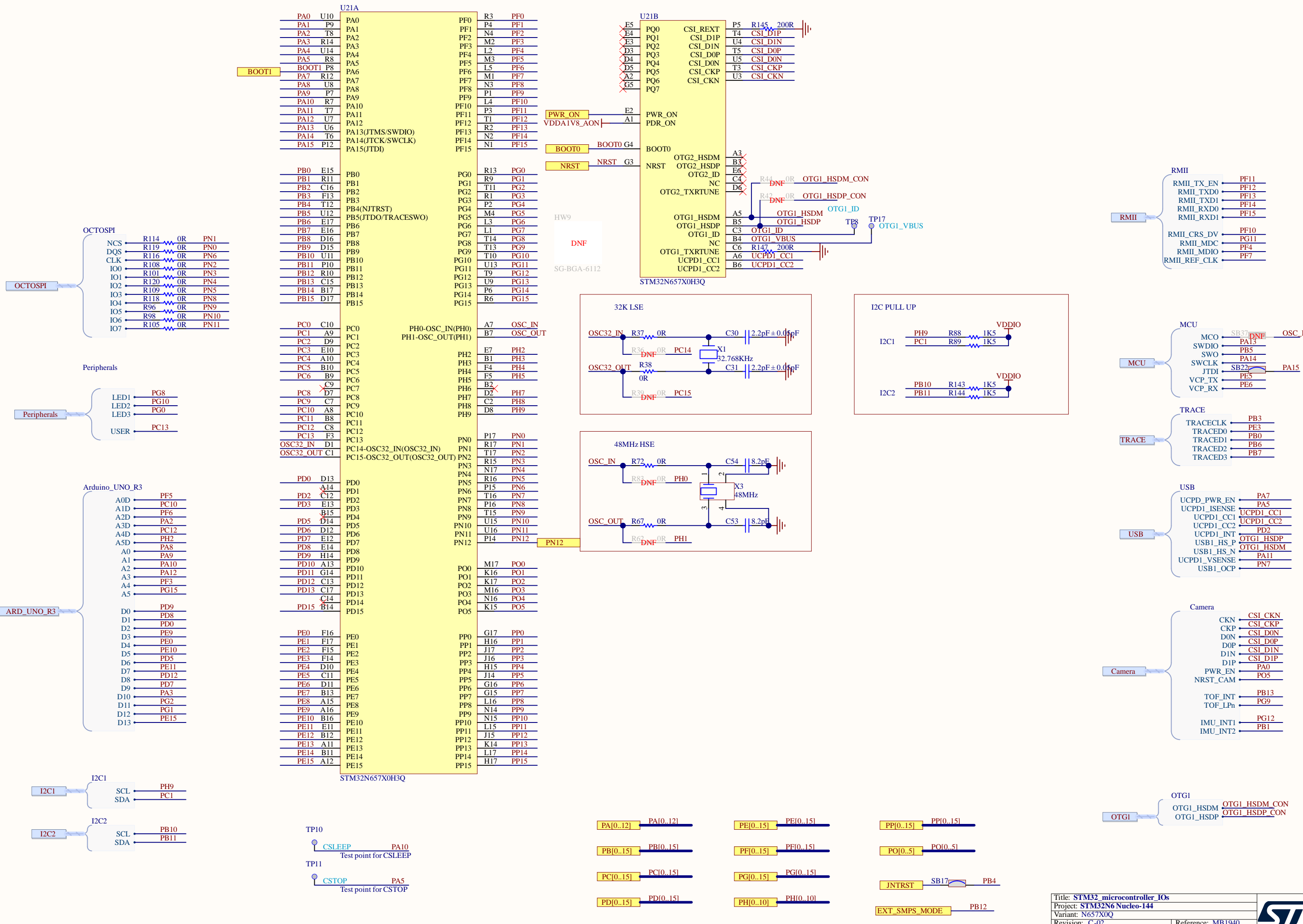
U_Top
Top.SchDoc



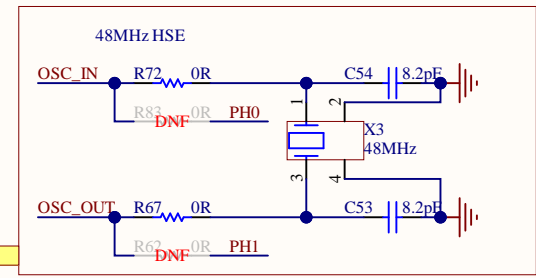
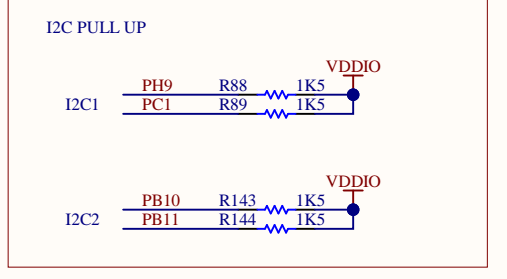
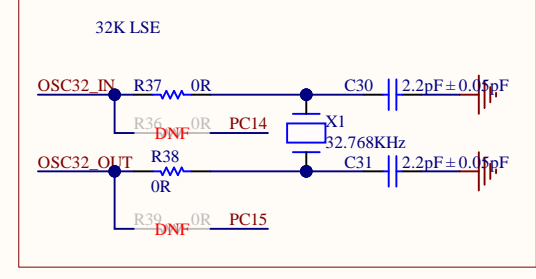
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Project: STM32N6 Nucleo-144		
Variant: N657X0Q		
Revision: C-02		Reference: MB1940
Size: A4	Date: 16-May-24	Sheet: 1 of 15

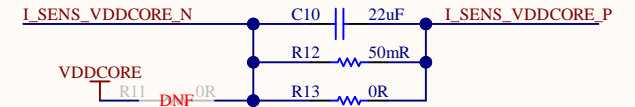
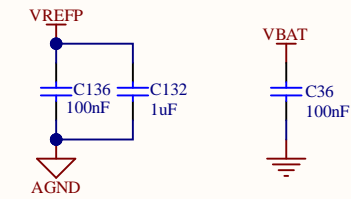
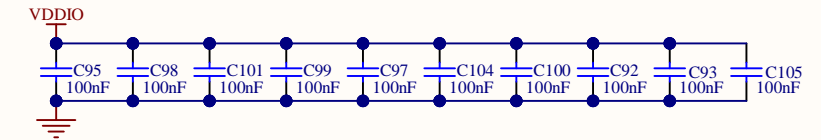
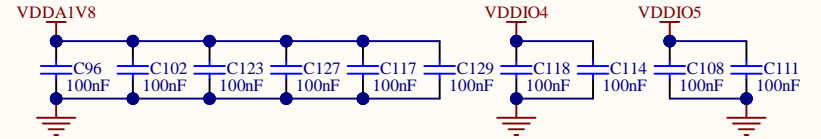
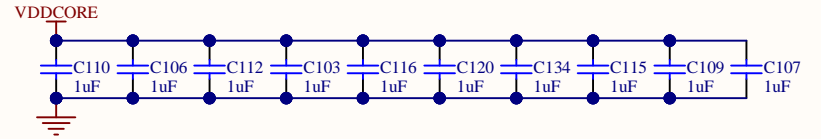
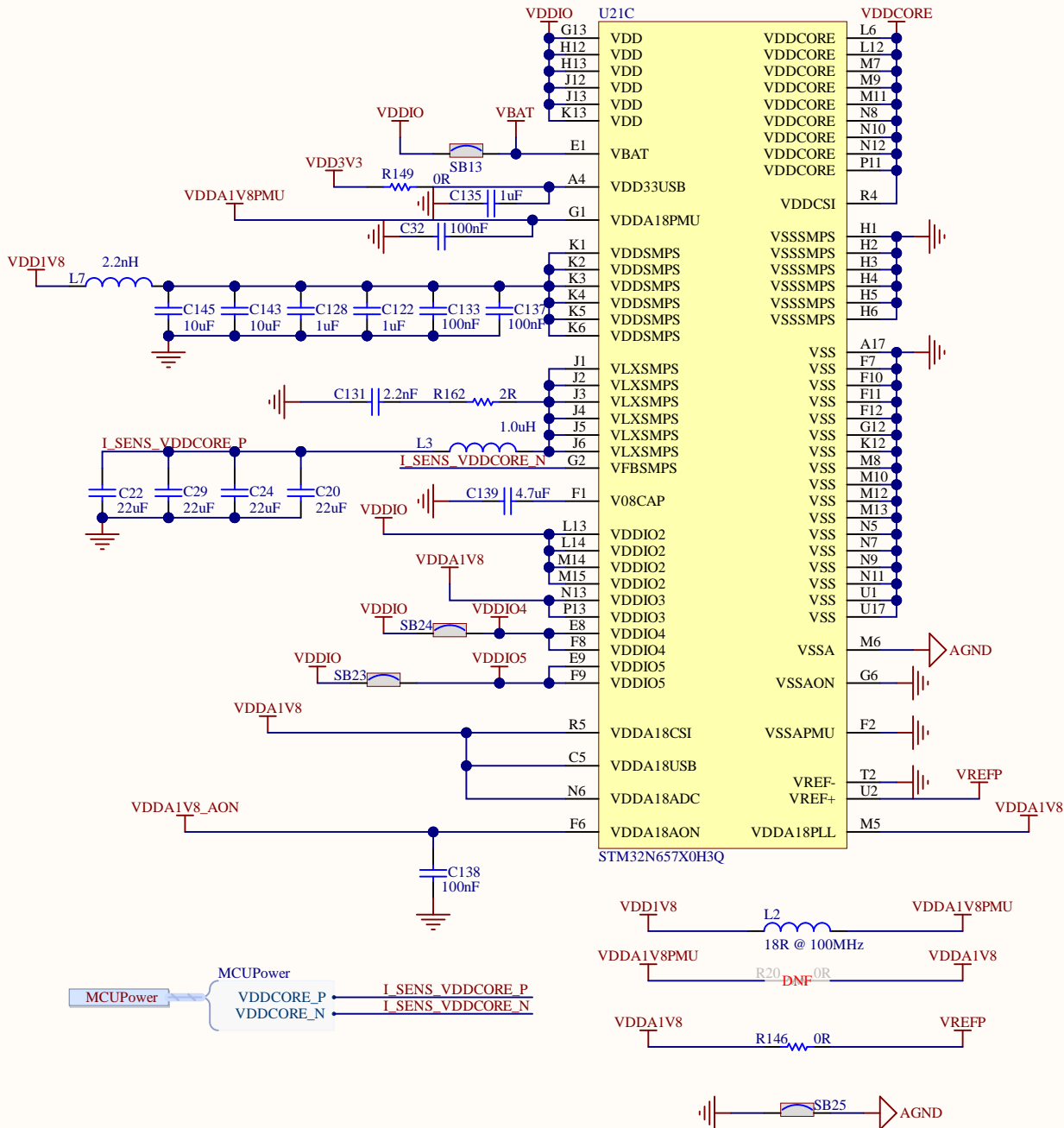






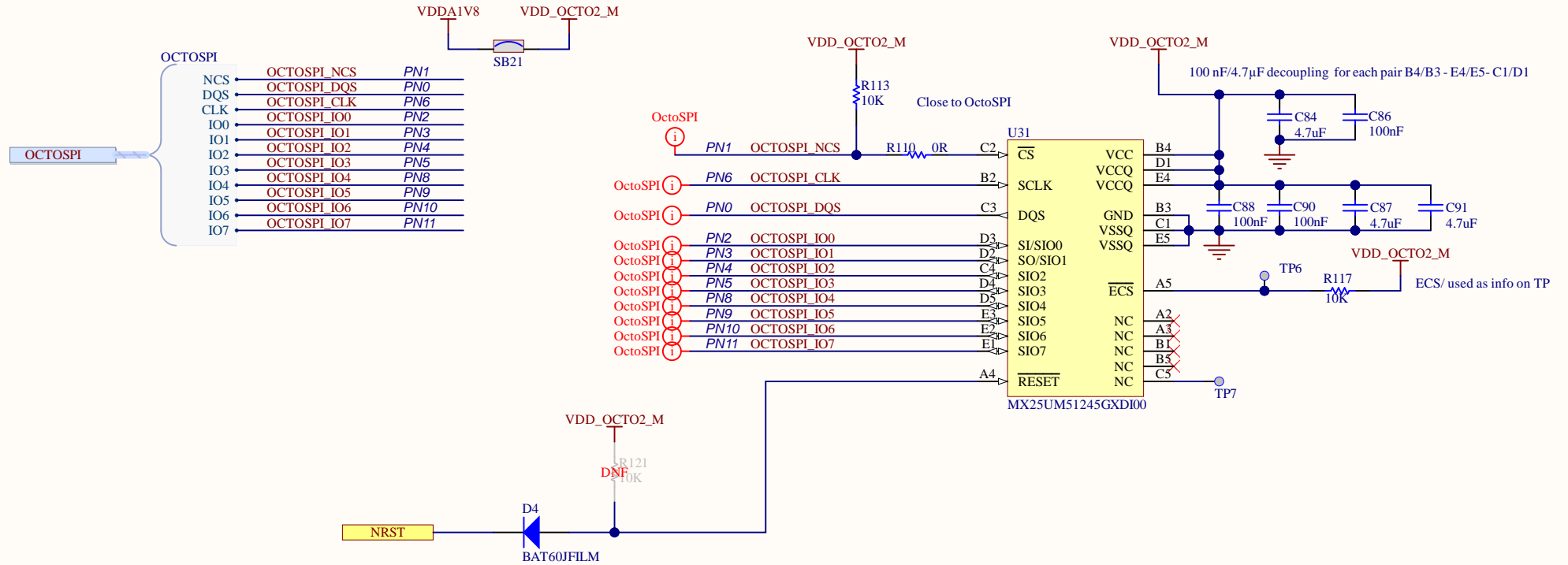
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PA1	P9	PF1	P4
PA2	T8	PF2	N4
PA3	R14	PF3	M2
PA4	U14	PF4	L2
PA5	R8	PF5	M3
BOOT1	P8	PF6	L5
PA7	R12	PF7	M1
PA8	U8	PF8	N3
PA9	P7	PF9	P1
PA10	R7	PF10	L4
PA11	T7	PF11	P3
PA12	U7	PF12	T1
PA13	U6	PF13	R2
PA14	T6	PF14	N2
PA15	P12	PF15	N1
PA13(JTMS/SWDIO)			
PA14(JTCK/SWCLK)			
PA15(JTDI)			
PB0	E15	PG0	R13
PB1	R11	PG1	R9
PB2	C16	PG2	T11
PB3	F13	PG3	R1
PB4	T12	PG4	P2
PB5	U12	PG5	M4
PB6	E17	PG6	L3
PB7	E16	PG7	L1
PB8	D16	PG8	T14
PB9	D15	PG9	T13
PB10	U11	PG10	T10
PB11	P10	PG11	U13
PB12	R10	PG12	T9
PB13	C15	PG13	U9
PB14	B17	PG14	P6
PB15	D17	PG15	R6
PC0	C10	PH2	E7
PC1	A9	PH3	B1
PC2	D9	PH4	F4
PC3	E10	PH5	F5
PC4	A10	PH6	B2
PC5	B10	PH7	D2
PC6	B9	PH8	C2
PC7	C9	PH9	D8
PC8	D7		
PC9	C7		
PC10	A8		
PC11	B8		
PC12	C8		
PC13	F3		
OSC32_IN	D1	PN0	P17
OSC32_OUT	C1	PN1	R17
		PN2	T17
		PN3	R15
		PN4	N17
		PN5	R16
		PN6	P15
		PN7	T16
		PN8	P16
		PN9	T15
		PN10	U15
		PN11	U16
		PN12	P14
		PO0	M17
		PO1	K16
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		PP7	G15
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		PP9	N14
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		PP13	K14
		PP14	L17
		PP15	H17





OctoSPI Flash Memory

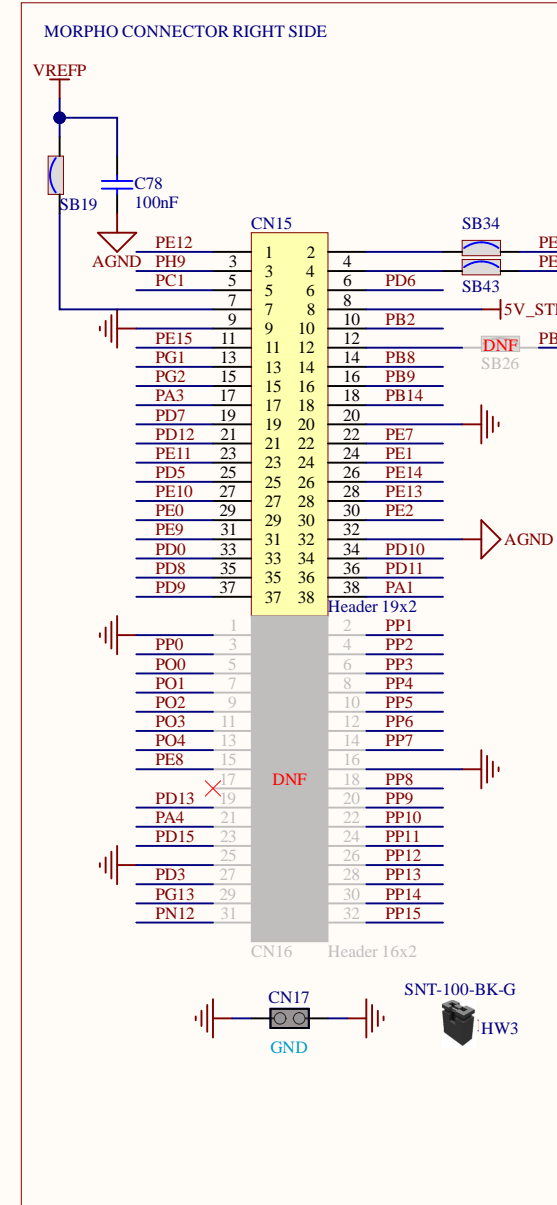
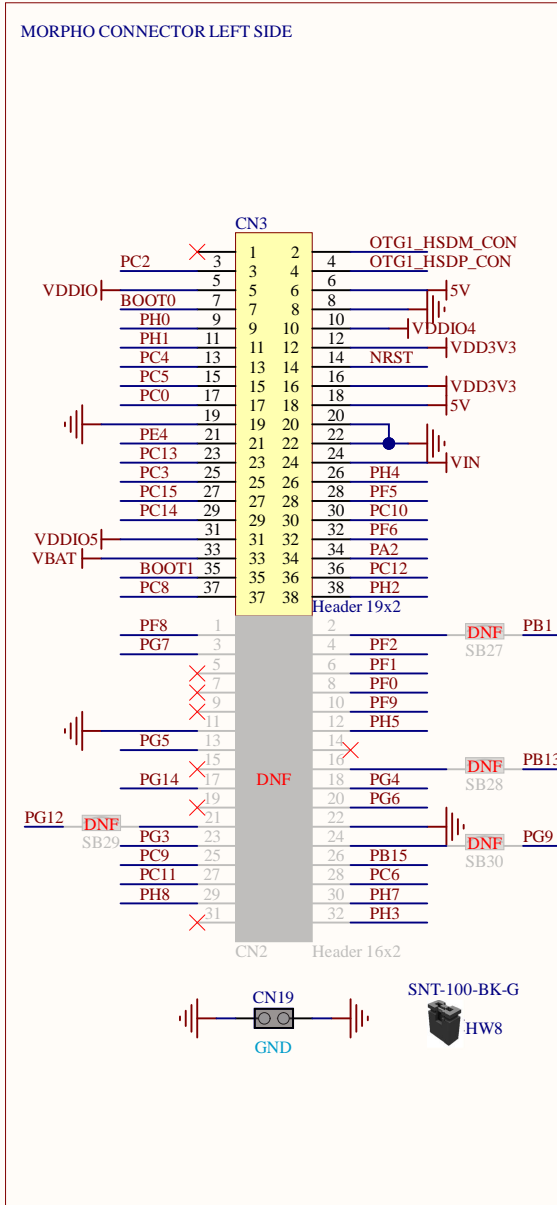
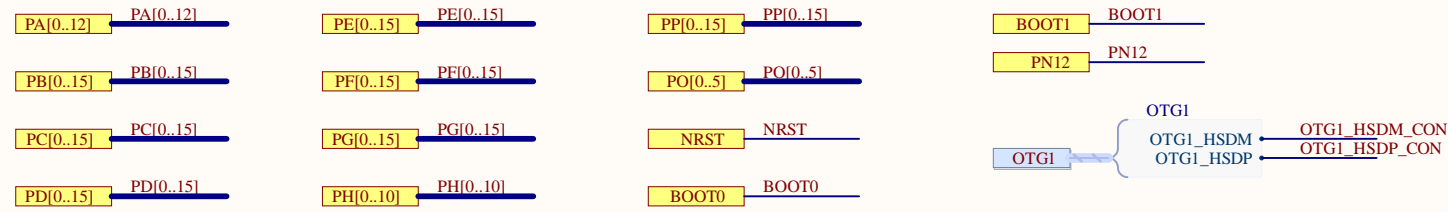
OCTOSPI
Impedance Constraint [Min = 45.00 Max = 55.00]



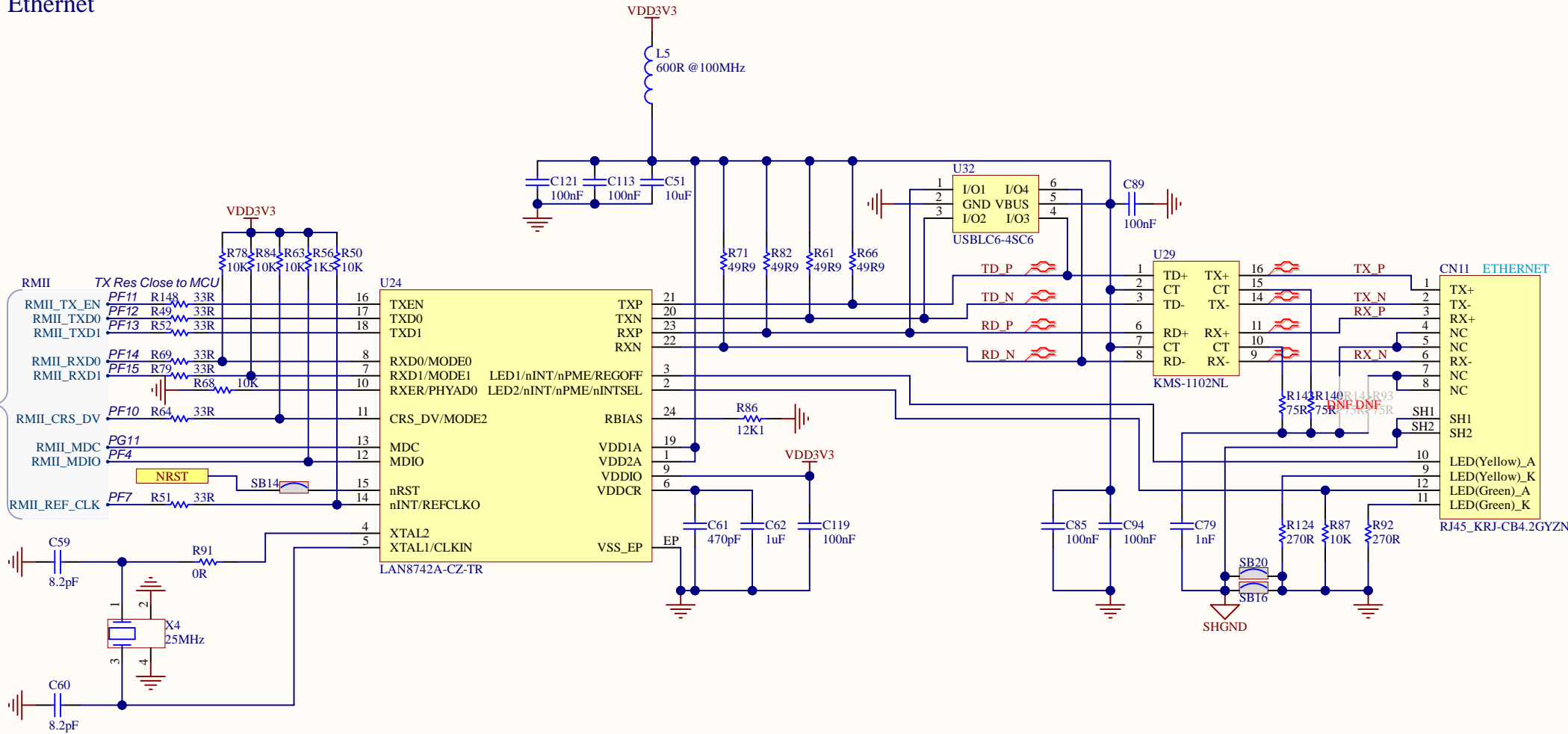
△ Length equalization (include BGA package length) :

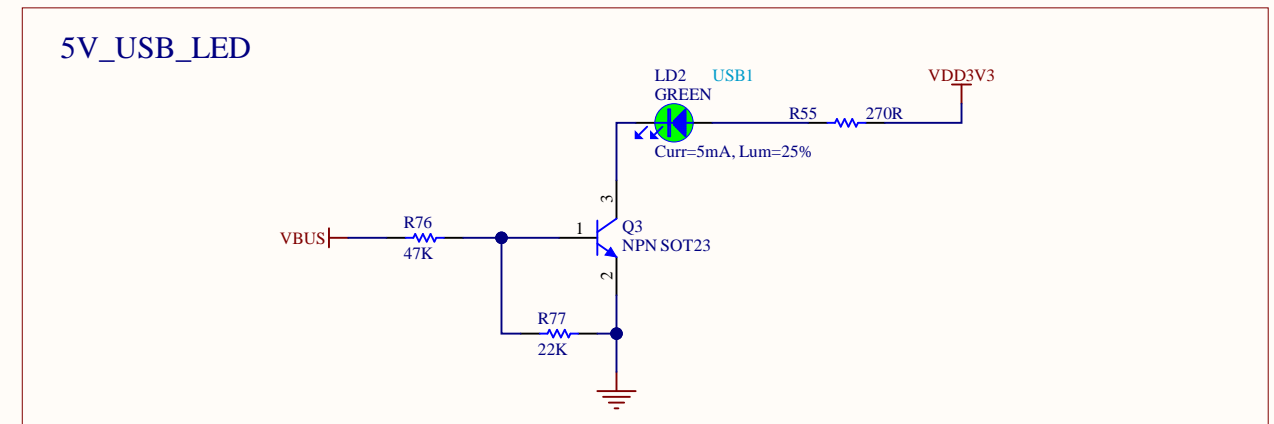
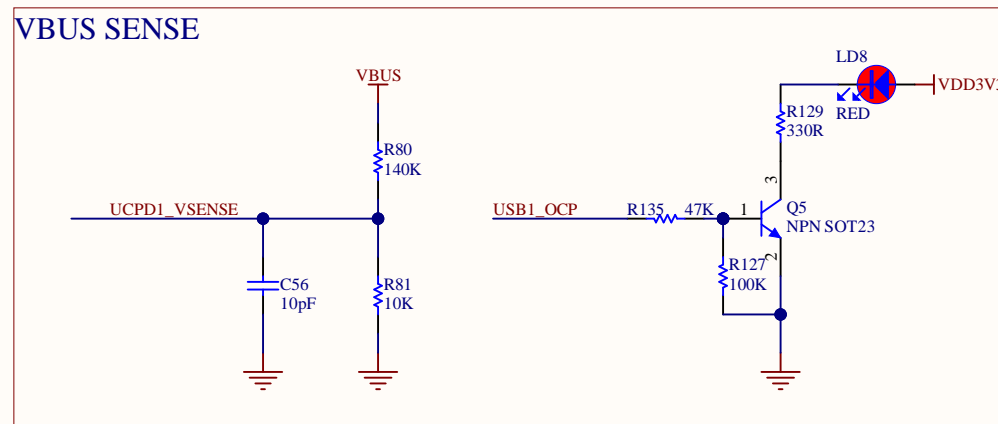
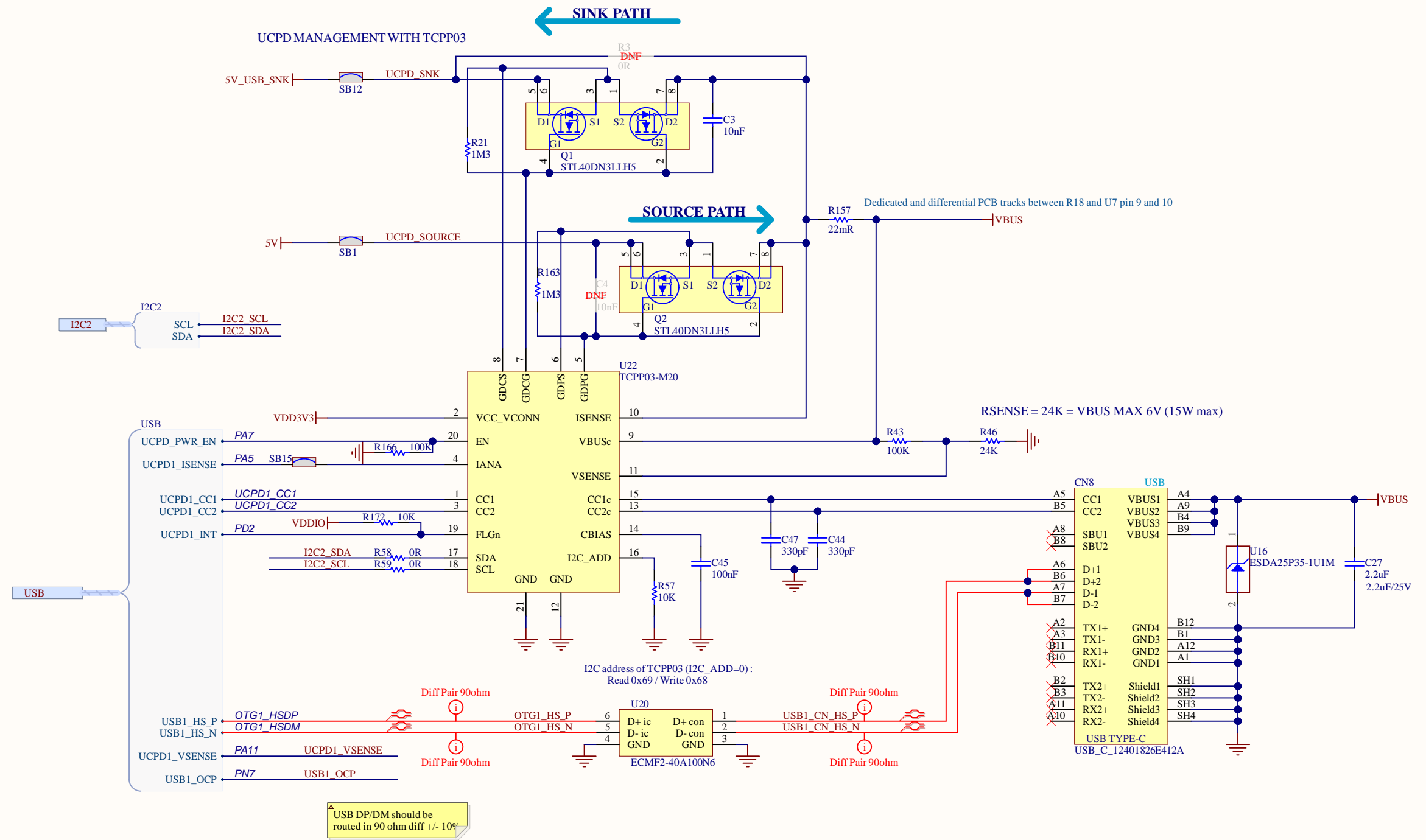
- DQS0 with IO0..7 (Byte0) , and CLK , all in 50 mils
- NCS length can be in the range of up to CLK length +/- 750 mils





Ethernet





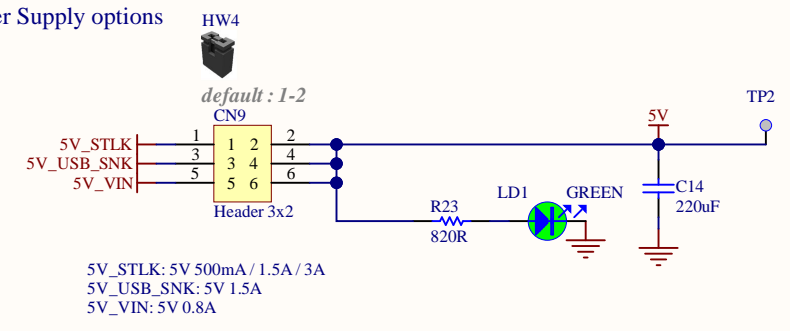
Power
EXT_SMPS_MODE PWR_LP

PWR_ON PWR_ON

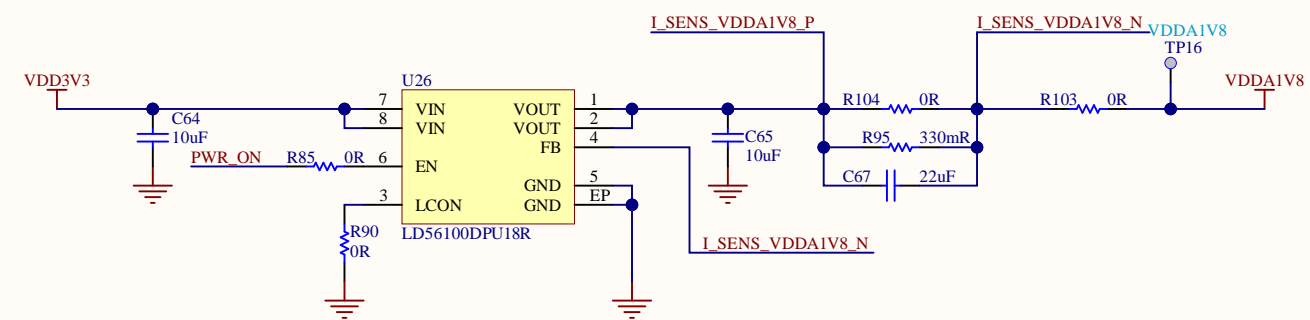
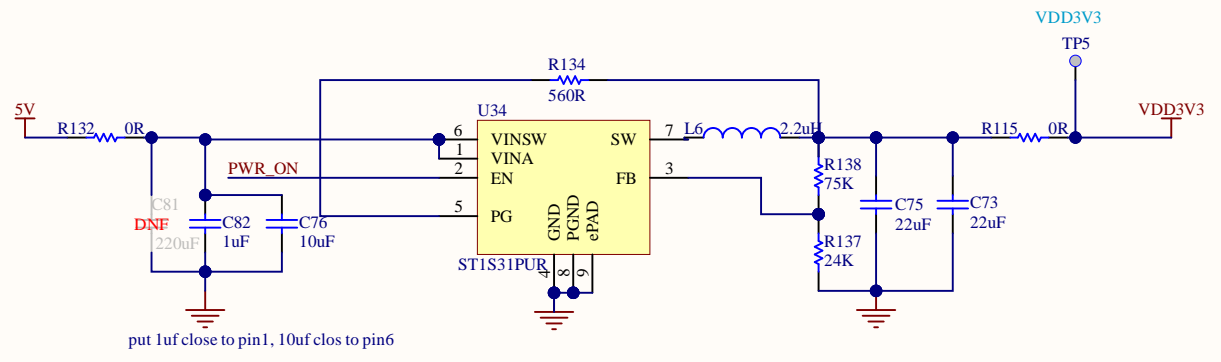
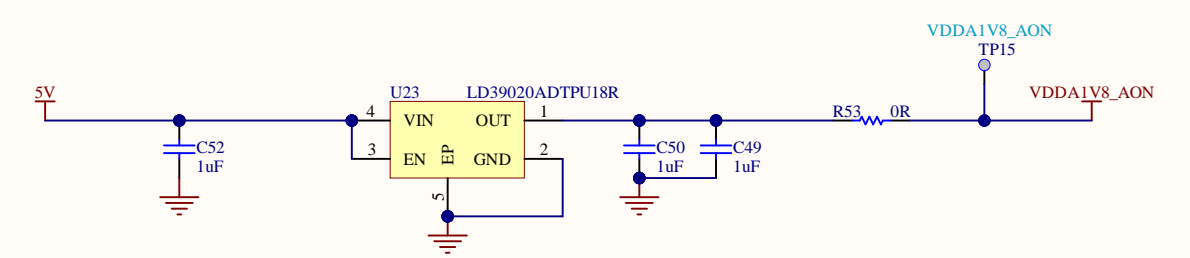
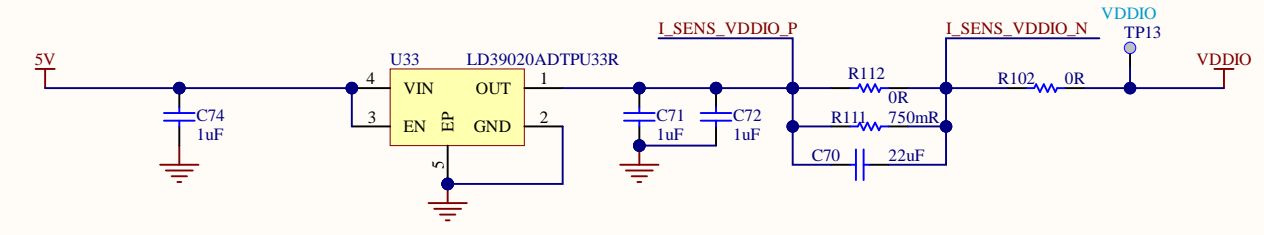
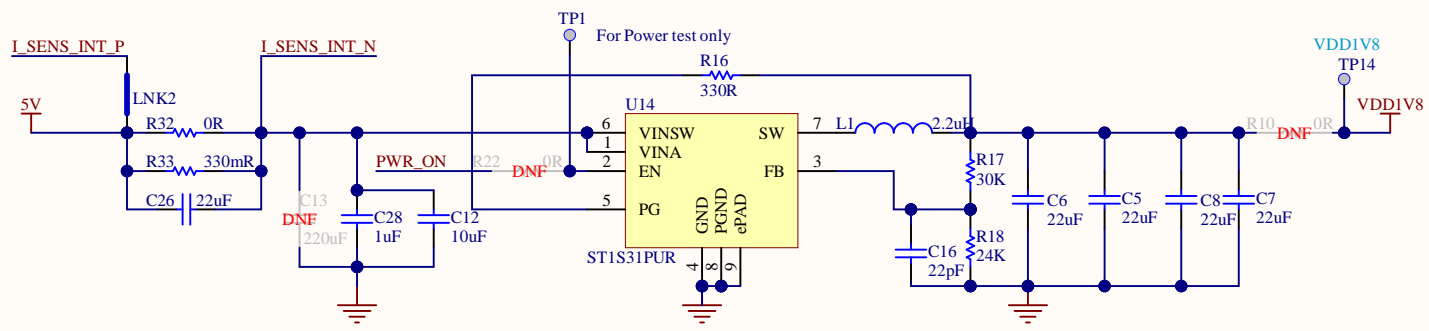
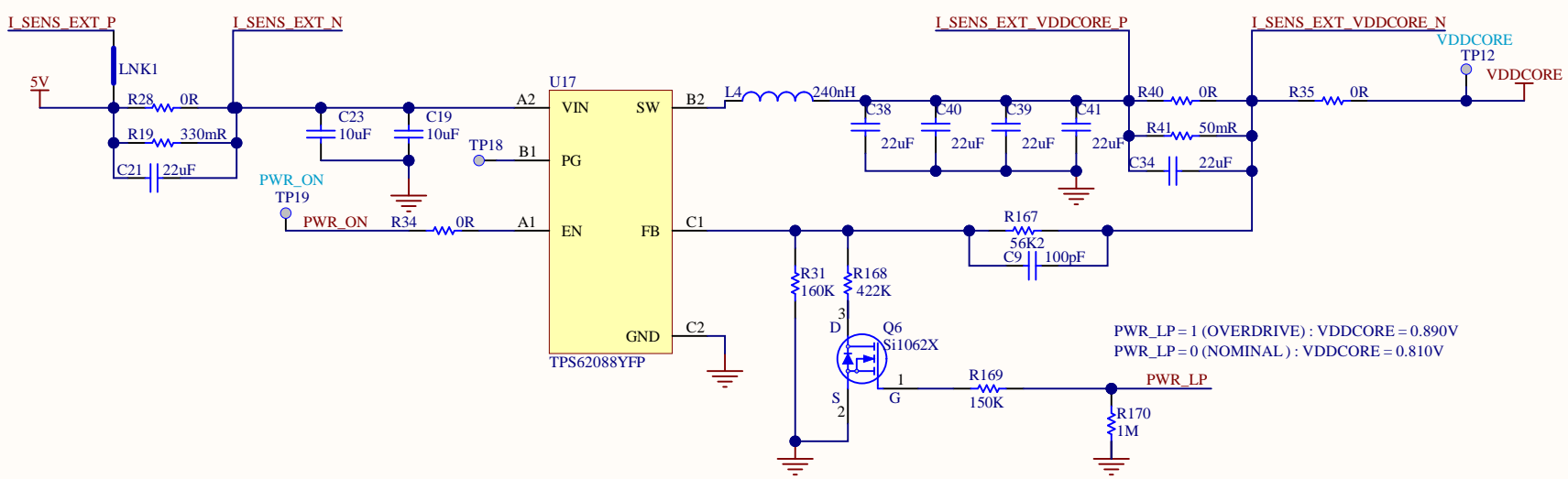
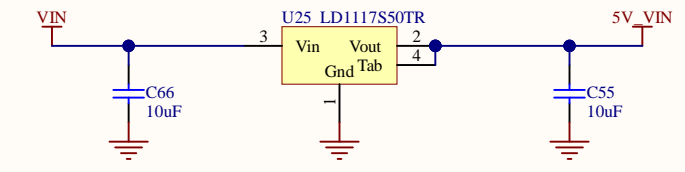


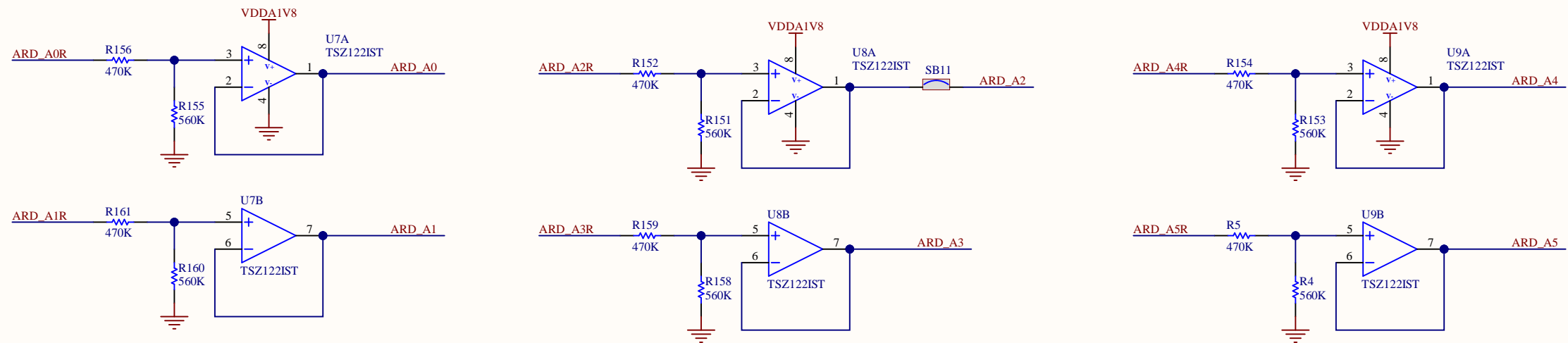
CN12		Jumper_Header 7x2	
I_SENS_EXT_P	1	2	I_SENS_EXT_N
I_SENS_EXT_VDDCORE_P	3	4	I_SENS_EXT_VDDCORE_N
I_SENS_INT_P	5	6	I_SENS_INT_N
I_SENS_INT_VDDCORE_P	7	8	I_SENS_INT_VDDCORE_N
I_SENS_VDDIO_P	9	10	I_SENS_VDDIO_N
I_SENS_VDDA1V8_P	11	12	I_SENS_VDDA1V8_N
	13	14	

5V Power Supply options

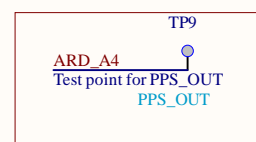
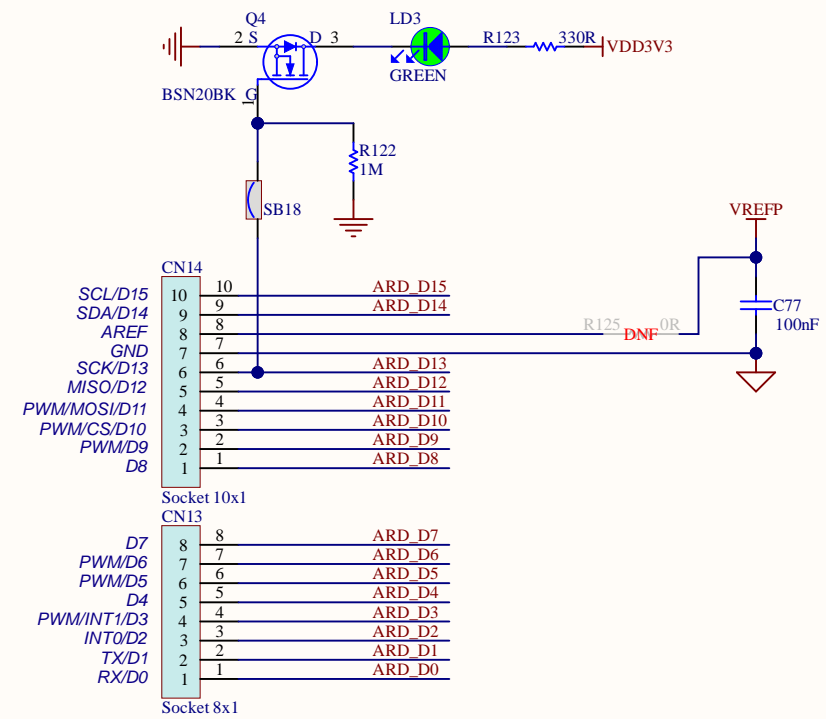
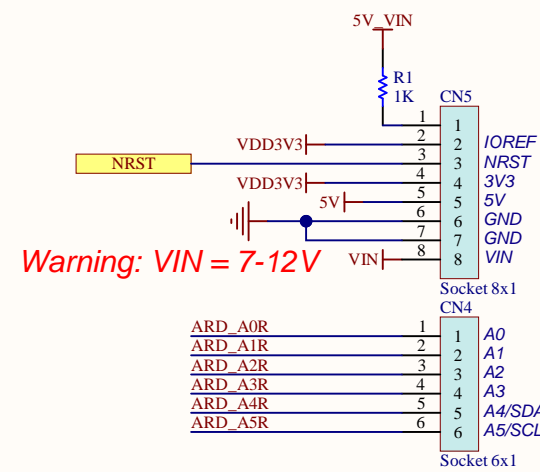
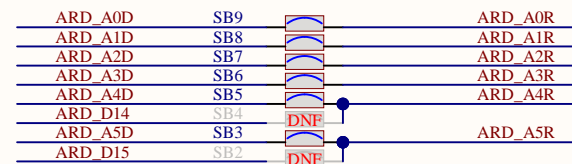
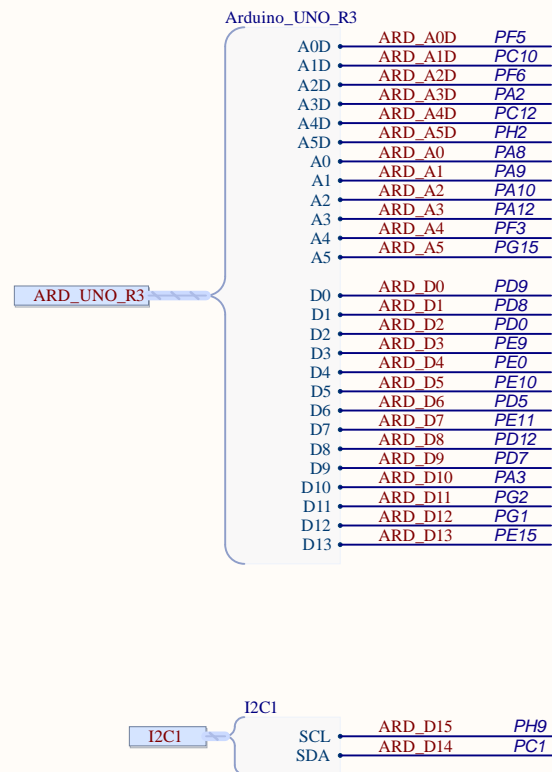


5V External Supply

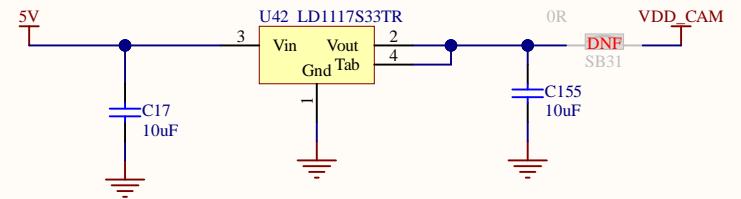
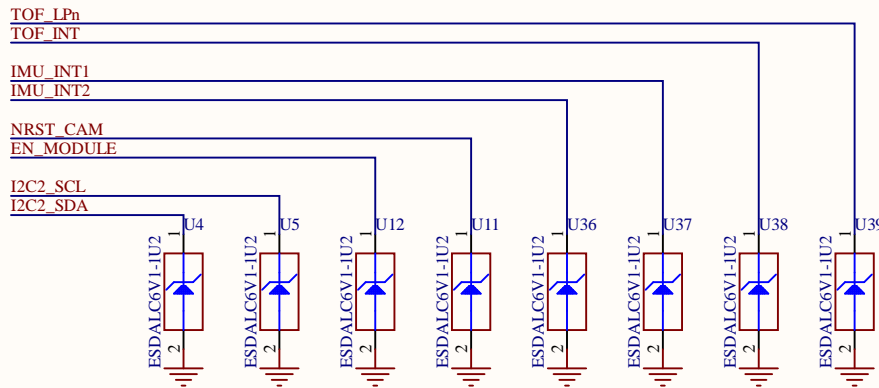
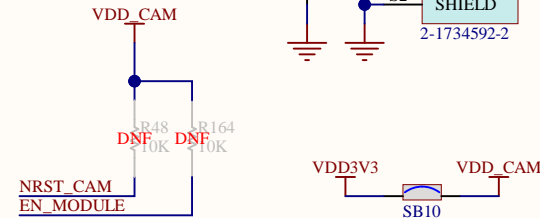
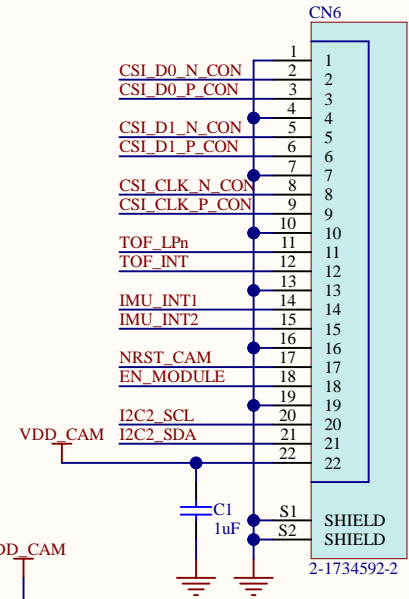
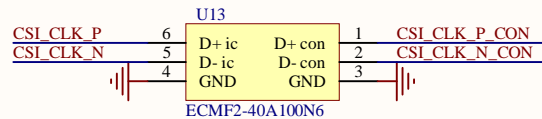
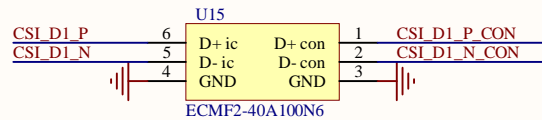
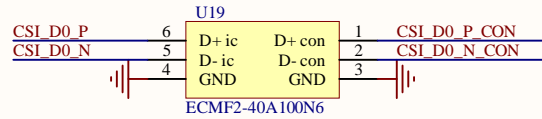
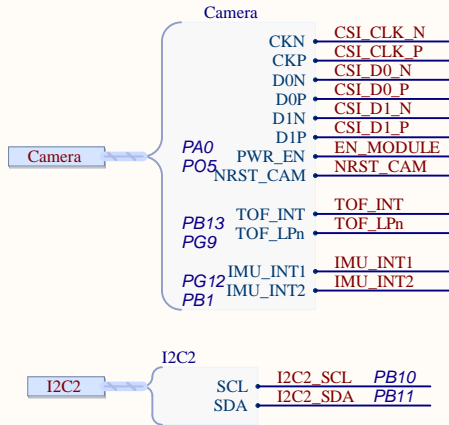




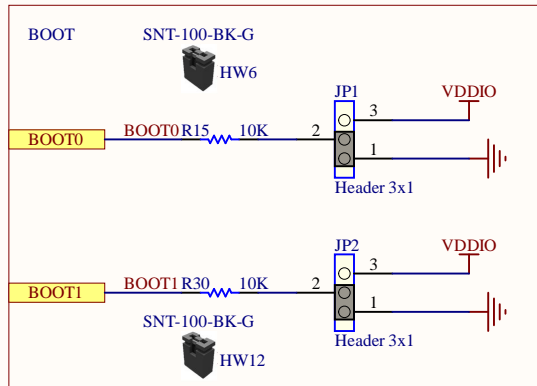
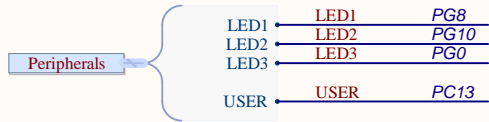
Arduino Connectors



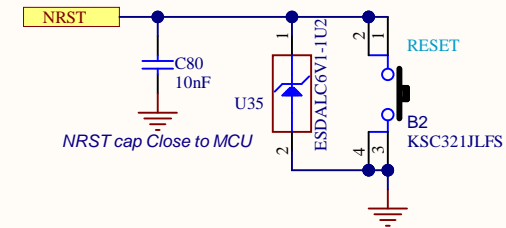
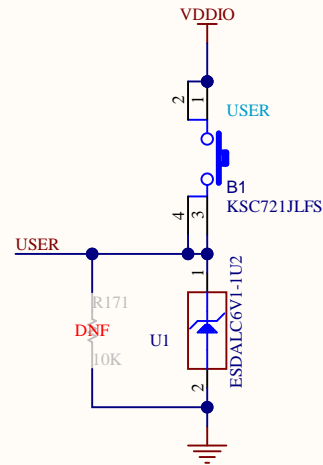
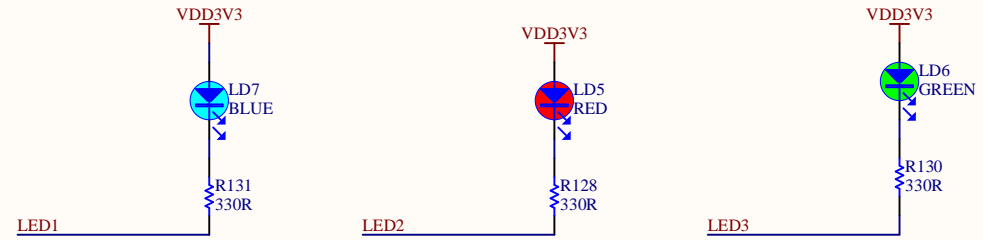
FFC CONNECTOR



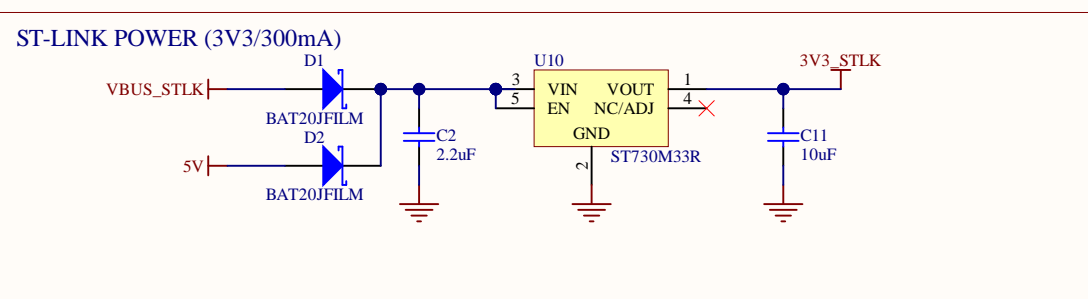
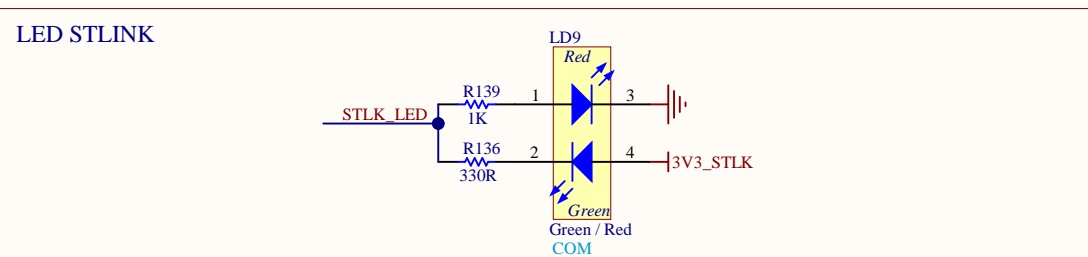
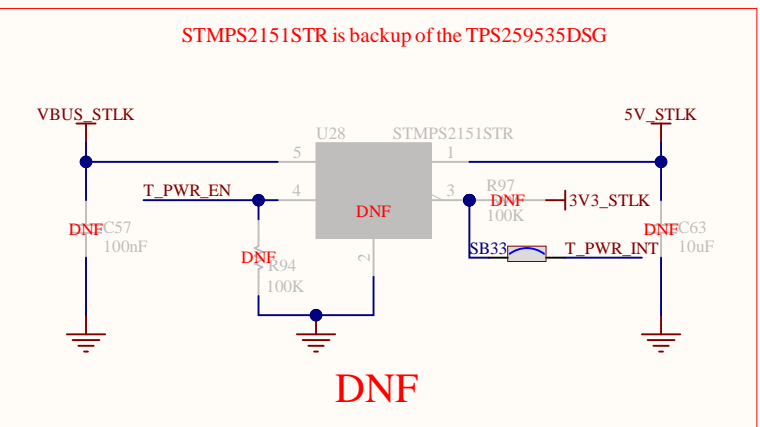
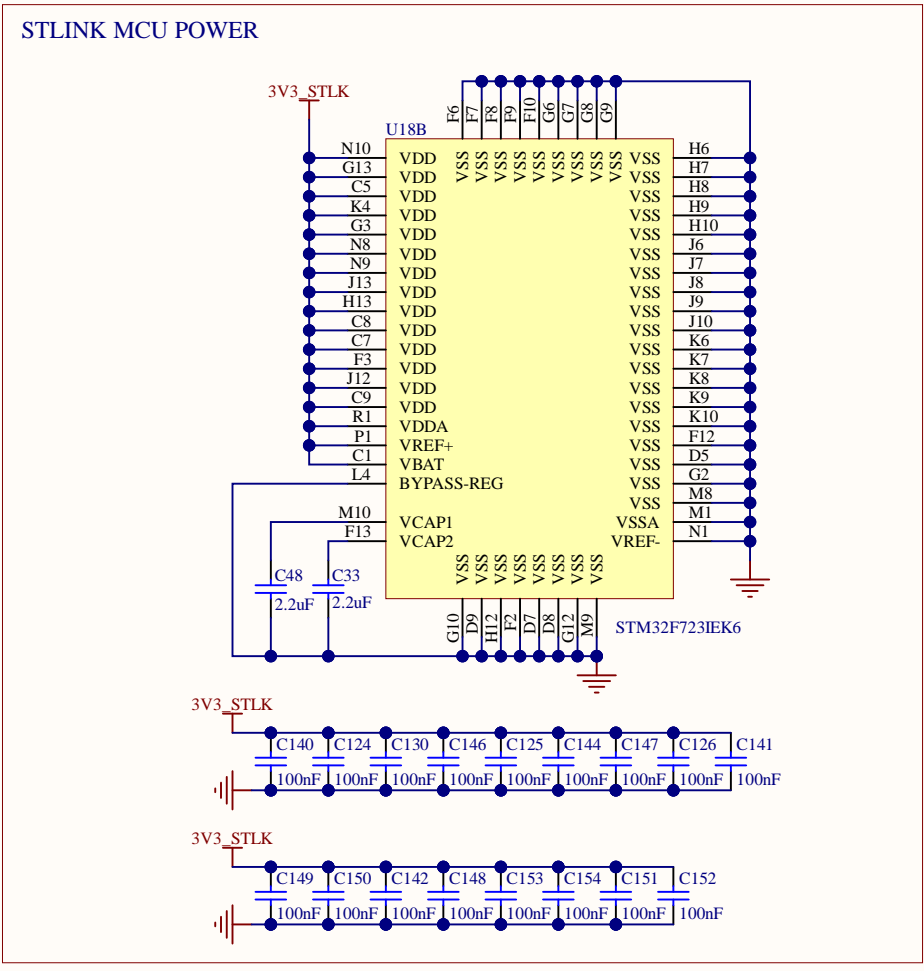
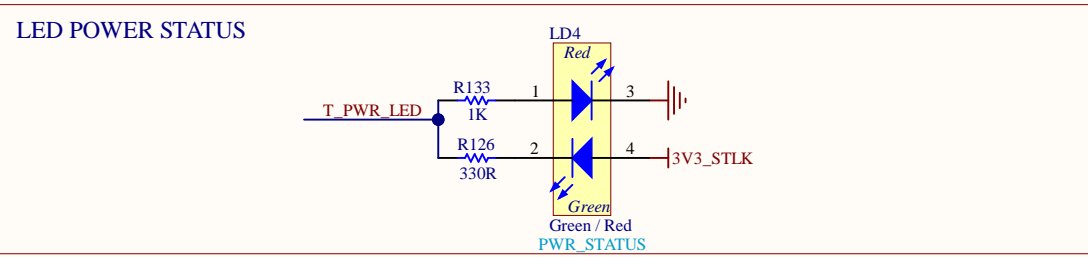
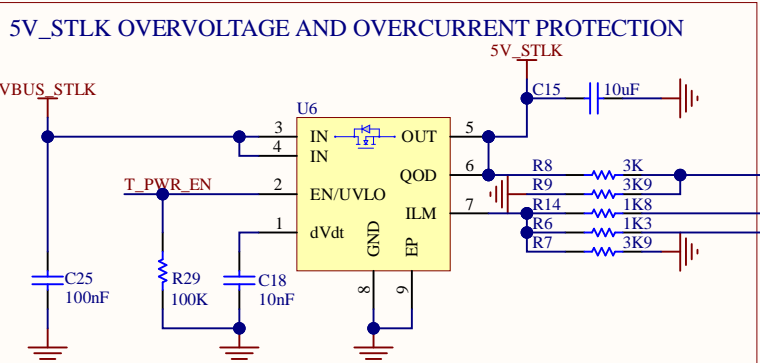
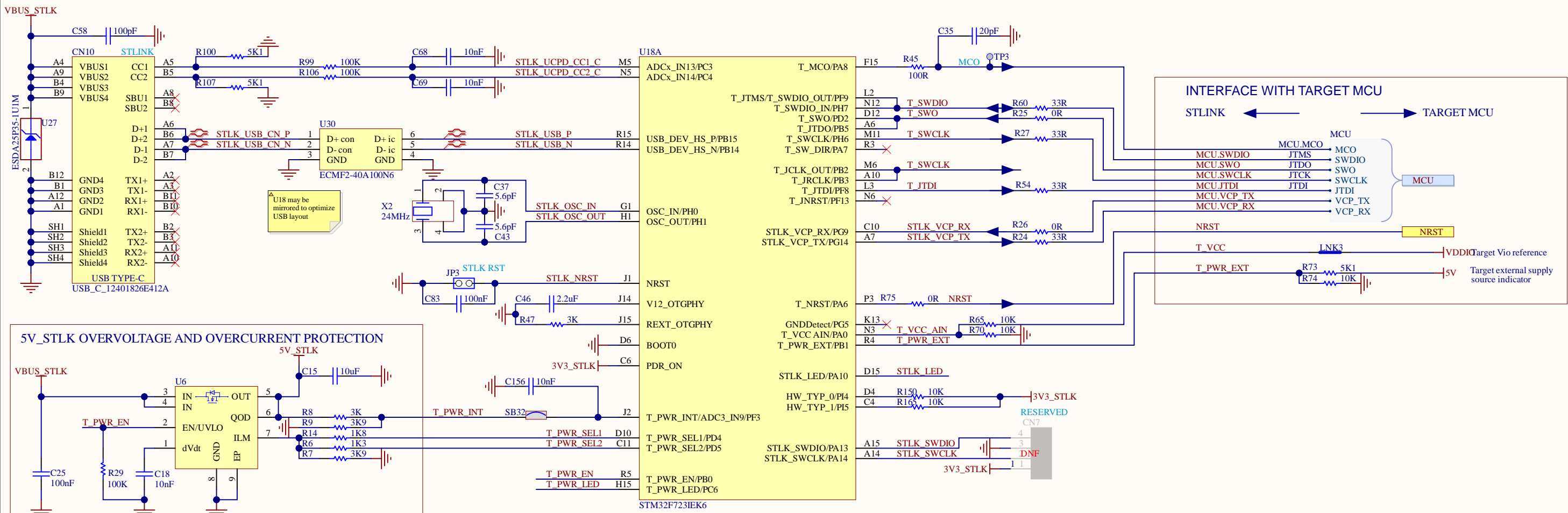
Peripherals



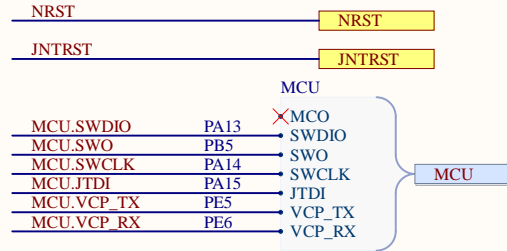
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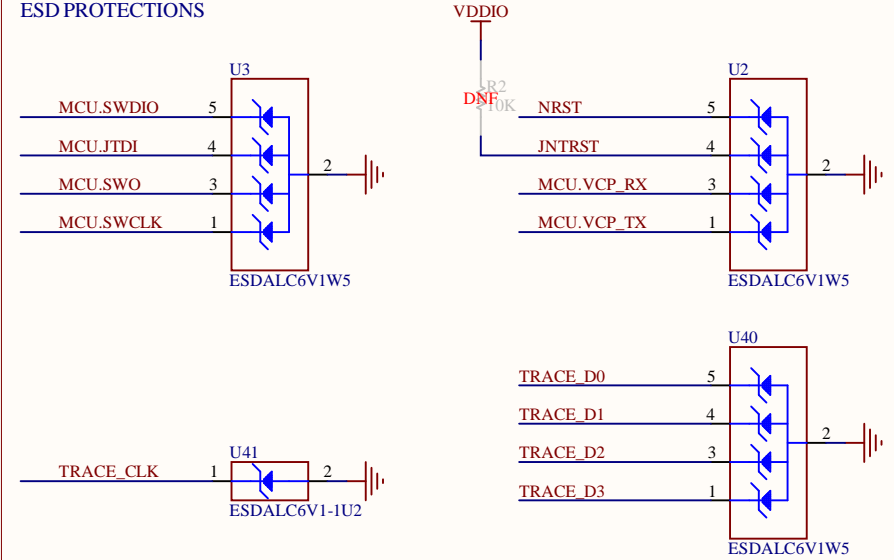
STLINK-V3EC



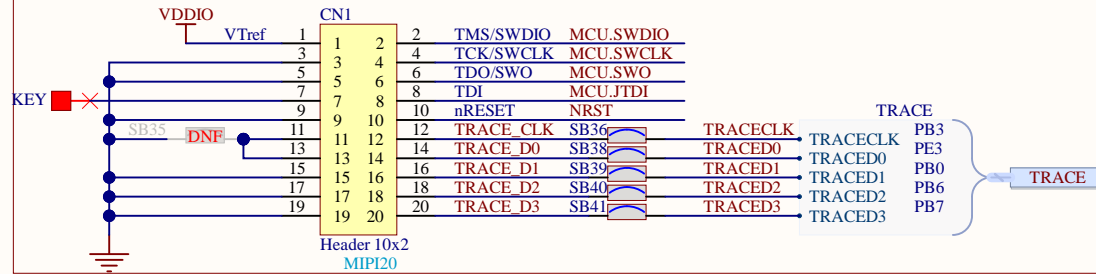
EXTERNAL DEBUGGER INTERFACE



ESD PROTECTIONS



MIPI-20 CONNECTOR



HW2

STICKER BOARD

Sticker board

HW1

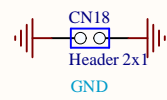
STICKER PRODUCT

Sticker product

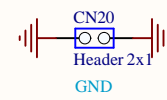
HW5

PCB

MB1940



SNT-100-BK-G

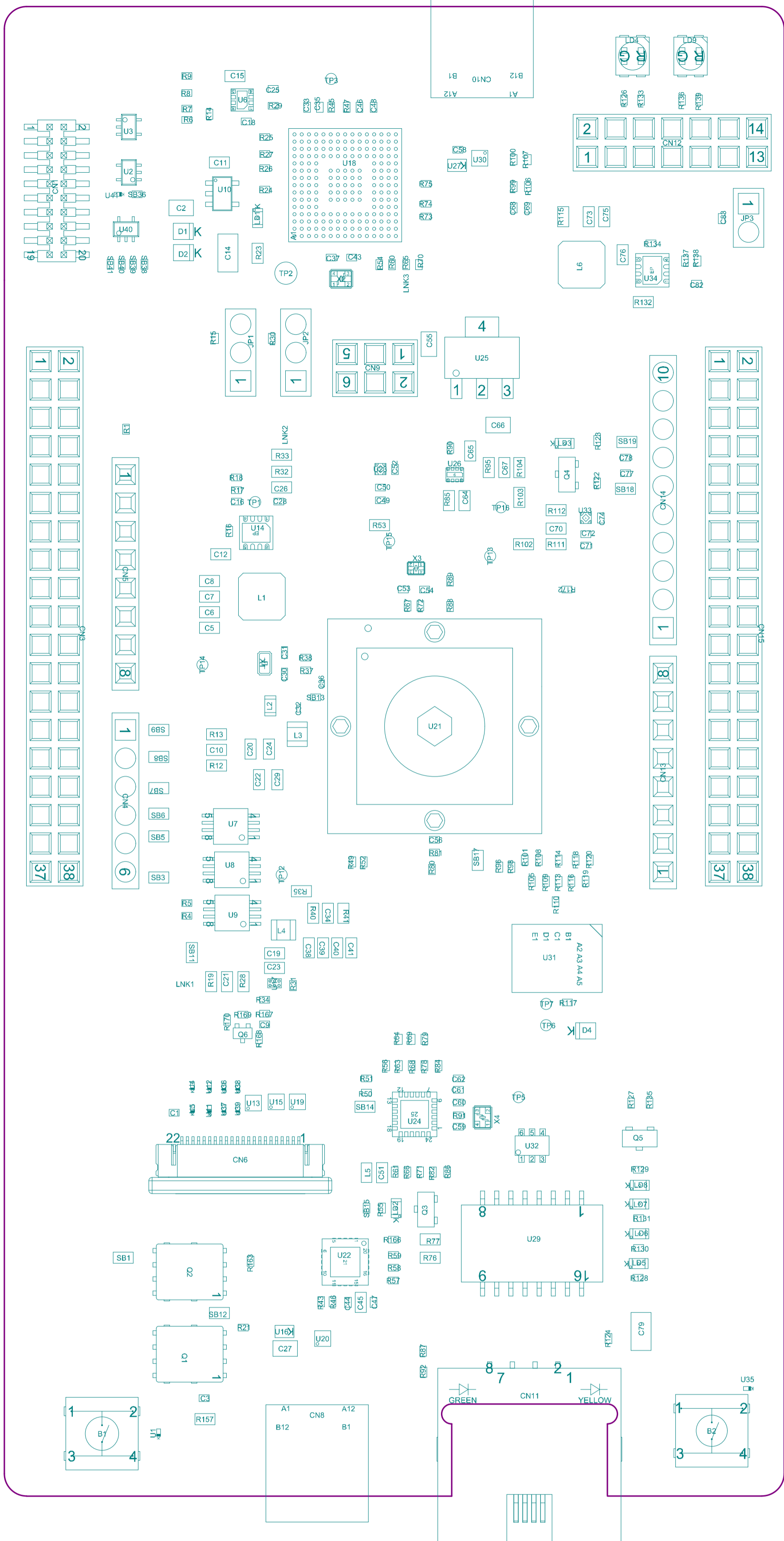


SNT-100-BK-G



Title: Mechanical		
Project: STM32N6 Nucleo-144		
Variant: N657X0Q		
Revision: C-02		Reference: MB1940
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Project: STM32N6 Nucleo-144

Layer: M14-Top Assembly

Gerber: .GM14

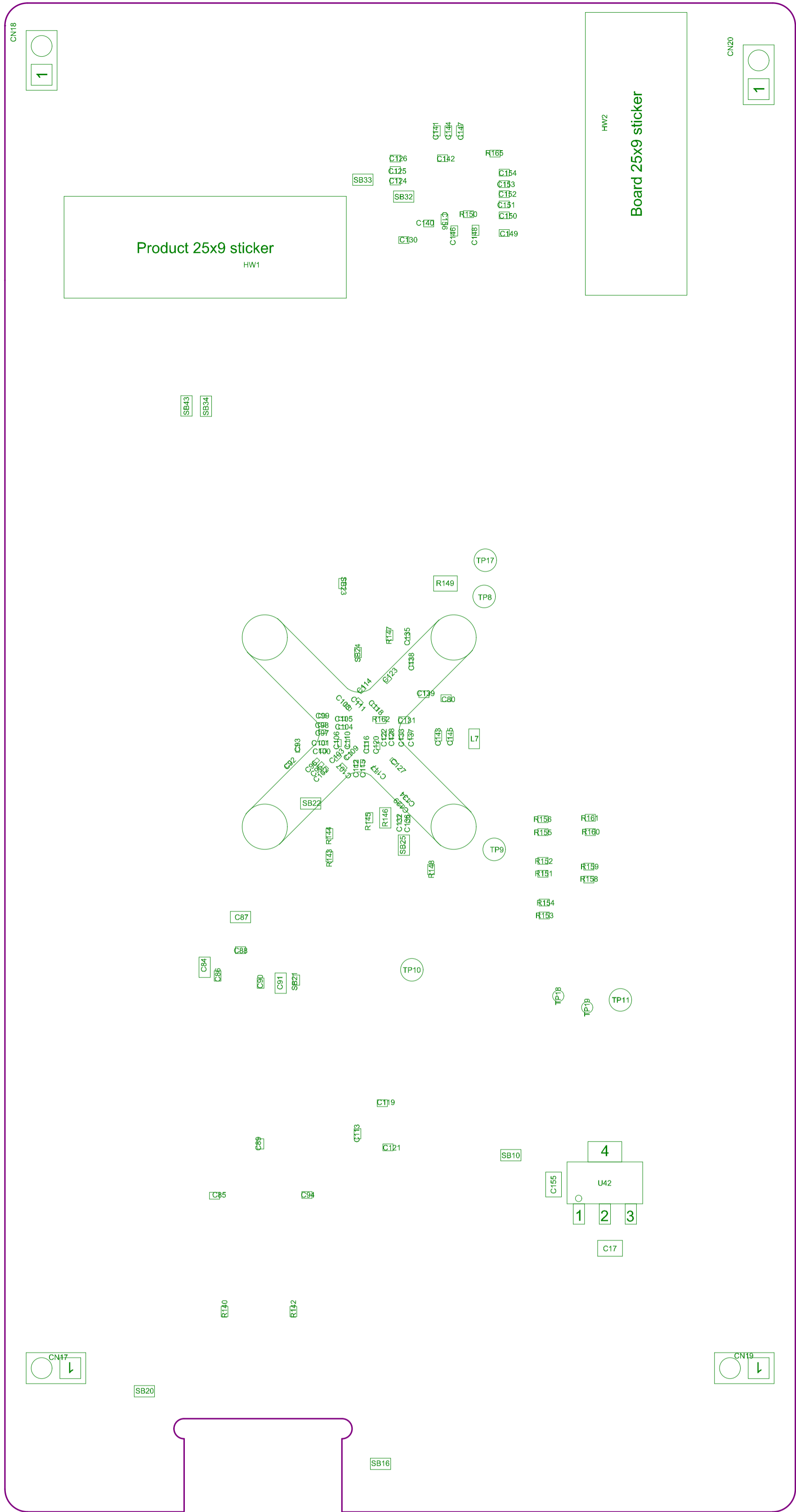
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Ref: MB1940

Date: 16-May-24

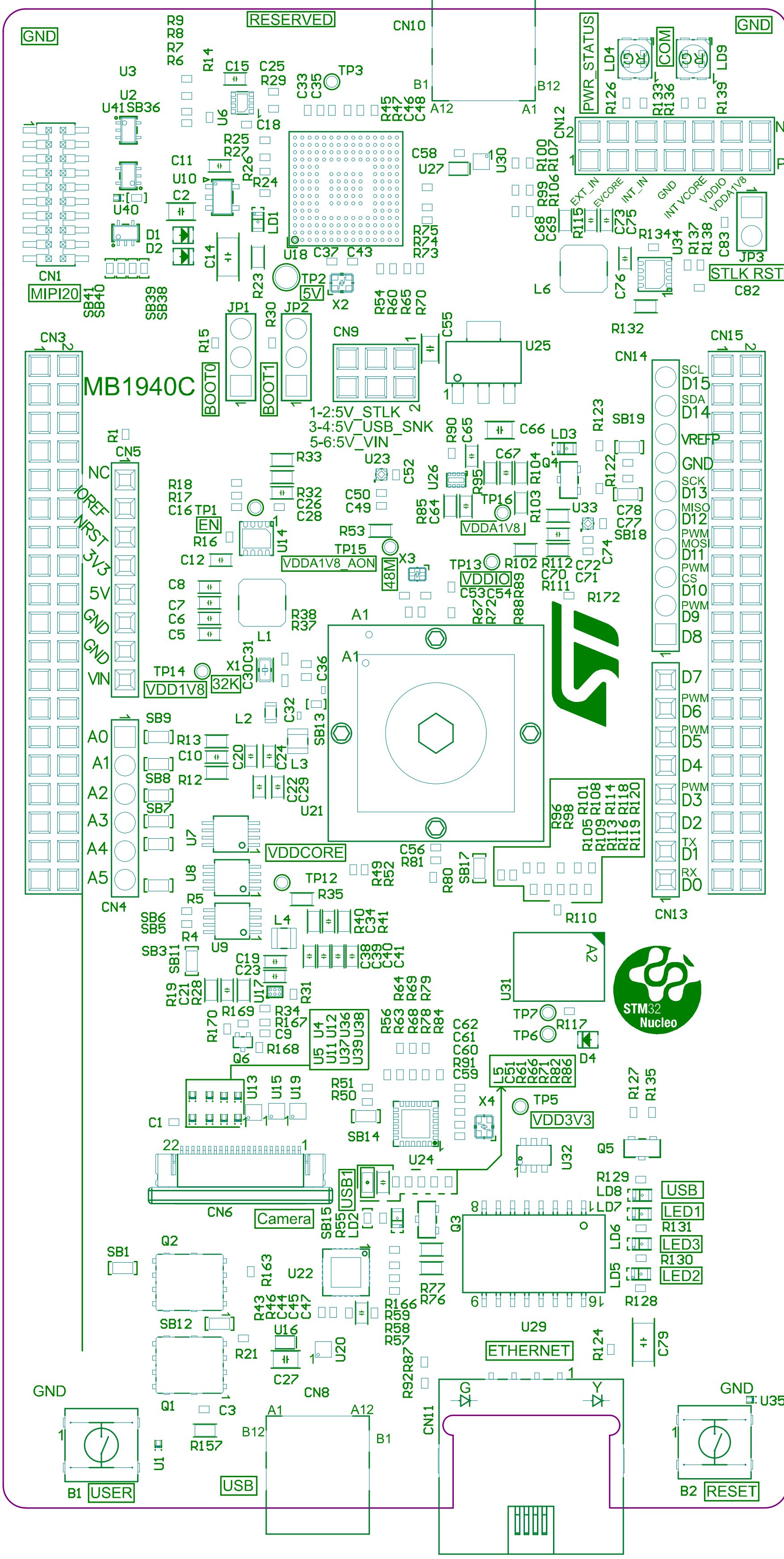
Rev: C





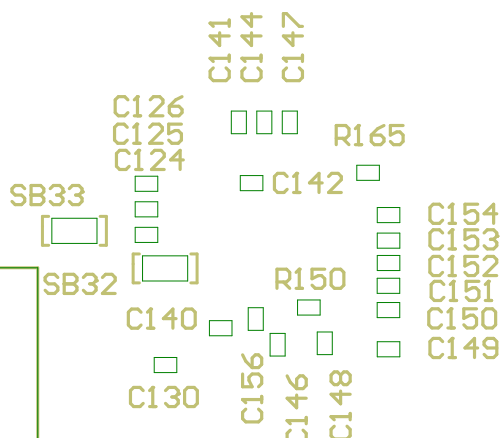
Project: STM32N6 Nucleo-144	
Layer: M15-Bottom Assembly	Gerber: .GM15
Variant: N657X0Q	Ref: MB1940
Date: 16-May-24	Rev: C



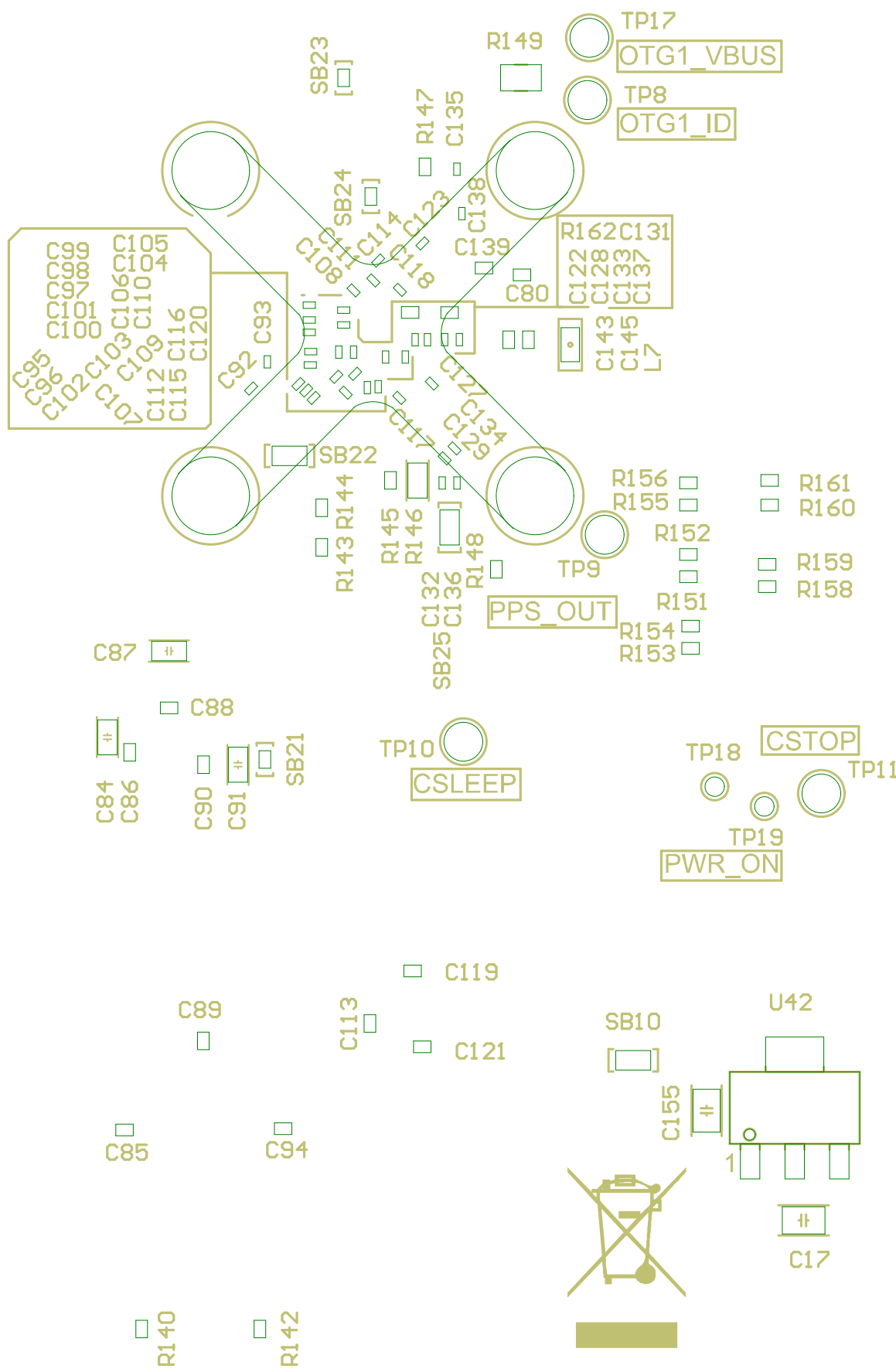




HW1
Product 25x9 sticker



HW2
Board 25x9 sticker



PE6
PE5
PD6
5U
STLK
PB2
PB3
PB8
PB9
PB14
GND
PE7
PE1
PE14
PE13
PE2
AGND
PD10
PD11
PA1
PP1
PP2
PP3
PP4
PP5
PP6
PP7
GND
PP8
PP9
PP10
PP11
PP12
PP13
PP14
PP15
GND

PE12
PH9
PC1
UREFP
GND
PE15
PG1
PG2
PA3
PD7
PD12
PE11
PD5
PE10
PE0
PE9
PDO
PD8
PD9
GND
PPO
P00
P01
P02
P03
P04
PE8
NC
PD13
PA4
PD15
GND
PD3
PG13
PN12

HSDM
HSDP
5V
GND
UDD104
UDD3U3
NRST
UDD3U3
5V
GND
GND
VIN
PH4
PF5
PC10
PF6
PA2
PC12
PH2
PB1
PF2
PF1
PF0
PF9
PH5
NC
PB13
PG4
PG6
GND
PG9
PB15
PC6
PH7
PH3
GND

NC
PC2
VDD10
BT0
PH0
PH1
PC4
PC5
PC0
GND
PE4
PC13
PC3
PC15
PC14
VDD105
UBAT
BT1
PC8
PF8
PG7
NC
NC
NC
GND
PG5
NC
PG14
NC
PG12
PG3
PC9
PC11
PH8
NC
GND

