

ZeST MC Disco control board

MB1811

Table of contents

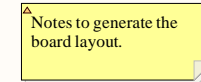
- Sheet 1: Project overview (this page)
- Sheet 2: MB1811_TOP
- Sheet 3: MCU
- Sheet 4: POWER
- Sheet 5: MC Connector V2
- Sheet 6: Morpho MC
- Sheet 7: STLINK V3EC
- Sheet 8: Mechanical

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.

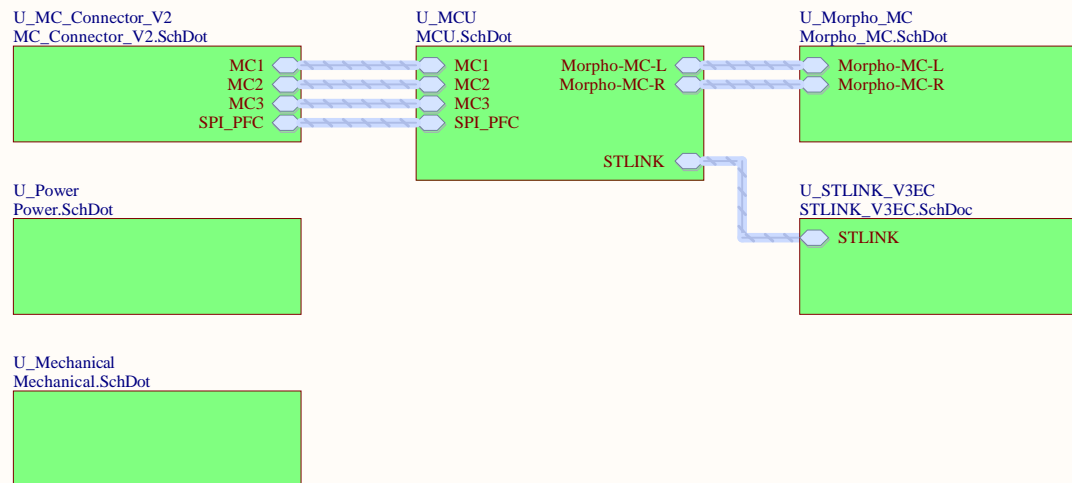
The complete Open Platform License Agreement can be found on www.st.com/opla.

U_MB1811_TOP
MB1811_TOP.SchDot

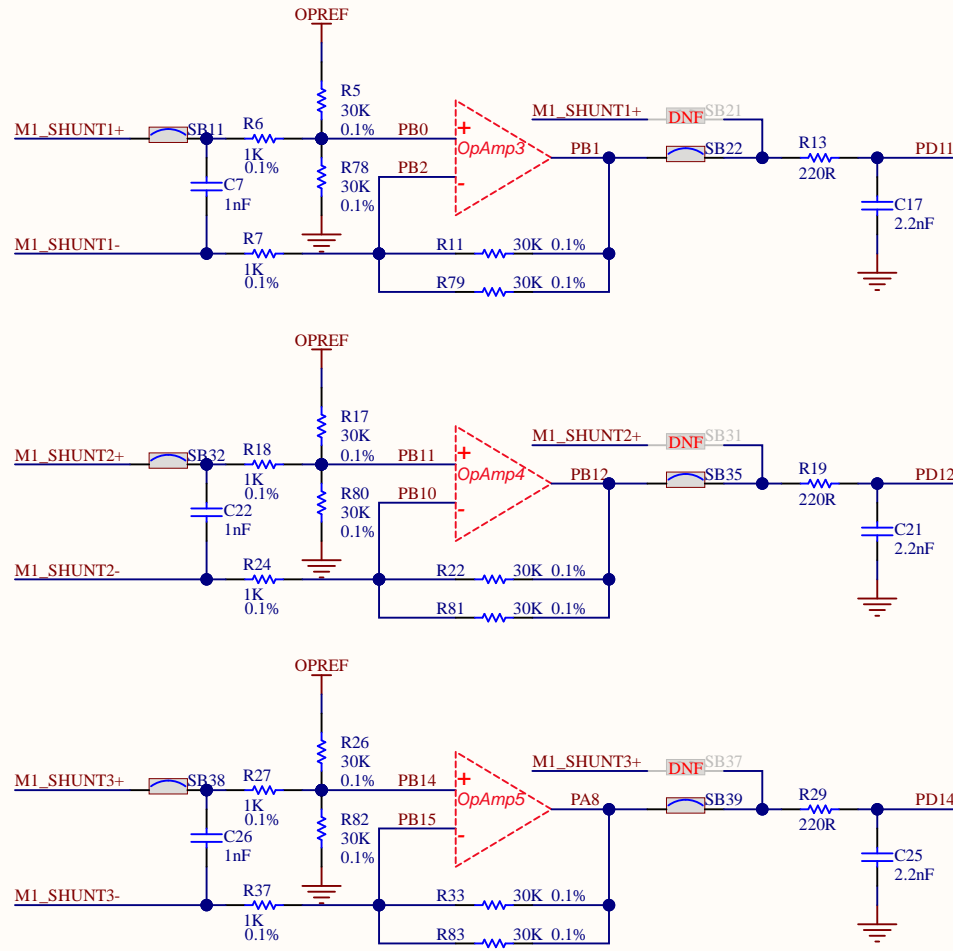


Title: Project Overview		
Project: ZeST MC Disco control board		
Variant: G473QE		
Revision: B-01		Reference: MB1811
Size: A4	Date: 23-MAY-22	Sheet: 1 of 8

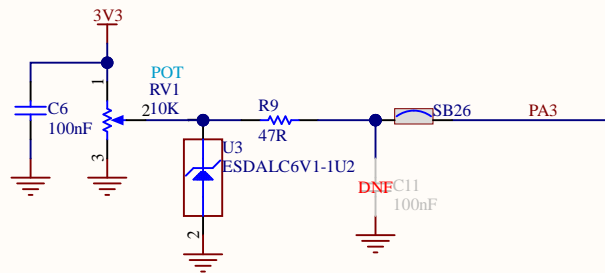




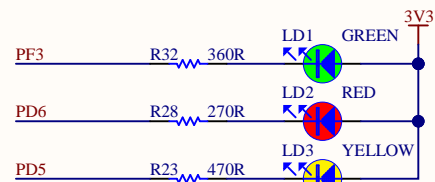
OpAmps



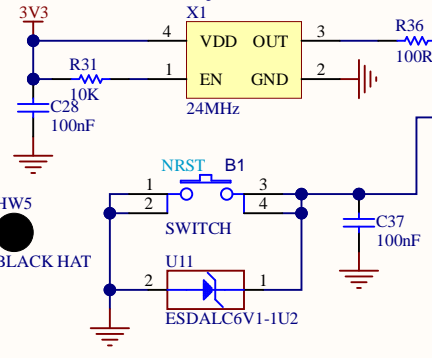
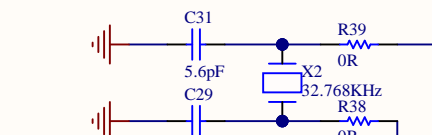
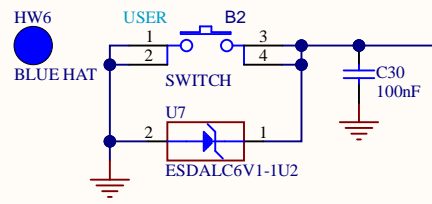
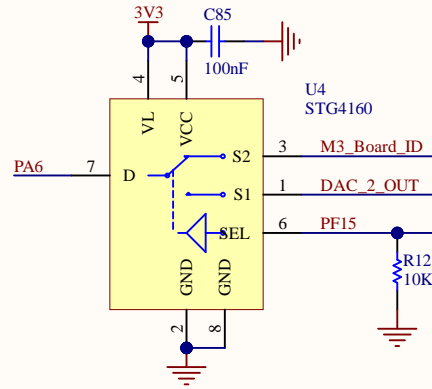
Potentiometer



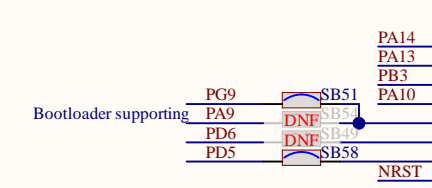
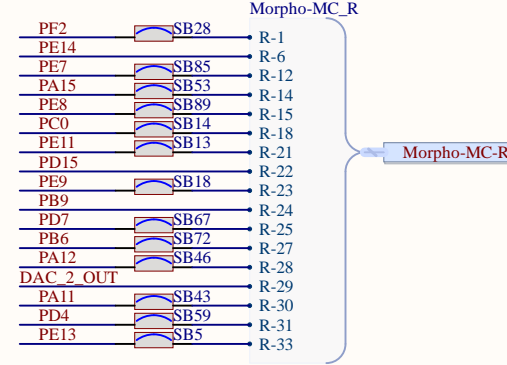
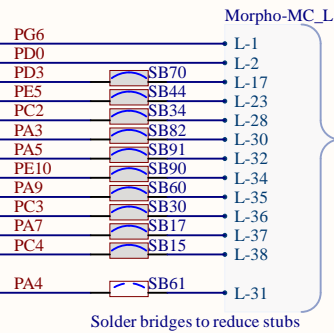
LEDs



MCU

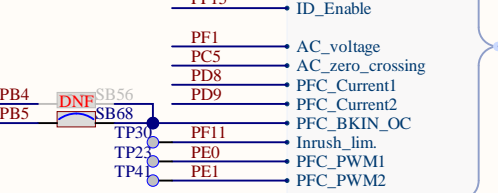
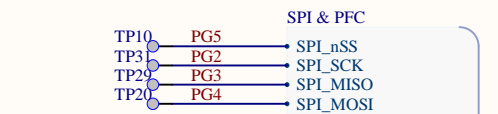
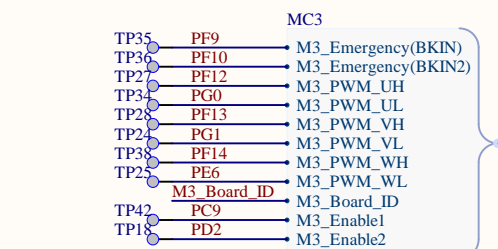
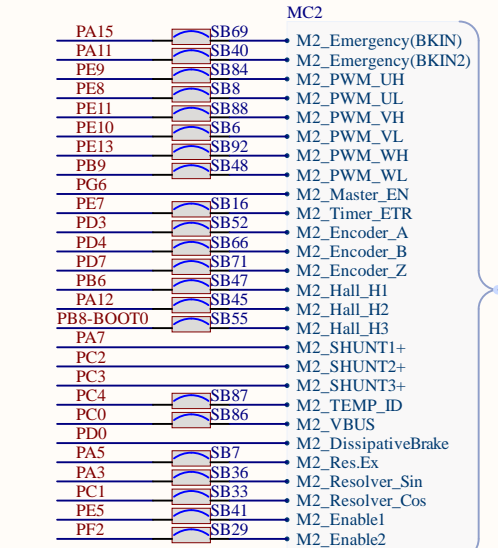
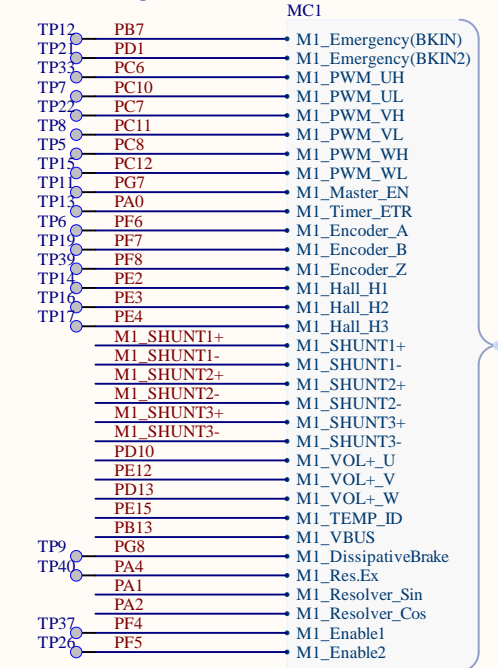


Morpho & STLINK signals

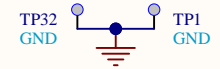
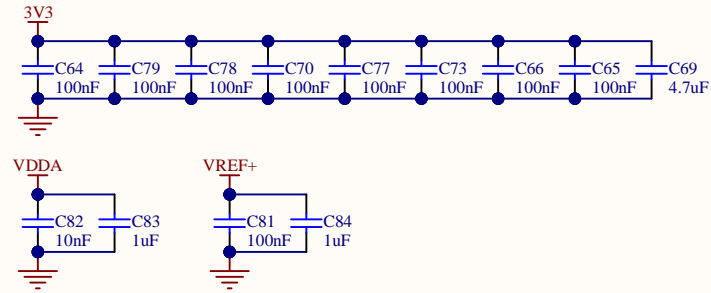
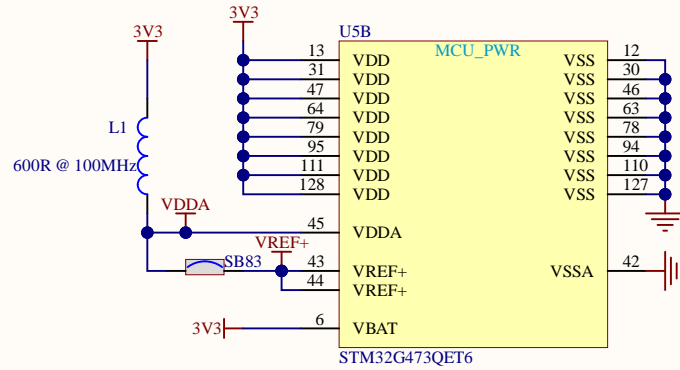


MCU Pin	MCU Pin	MCU Pin
PA0	27	PA0
PA1	28	PA1
PA2	29	PA2
PA3	32	PA3
PA4	33	PA4
PA5	34	PA5
PA6	35	PA6
PA7	36	PA7
PA8	89	PA8
PA9	90	PA9
PA10	91	PA10
PA11	92	PA11
PA12	93	PA12
PA13	96	PA13
PA14	98	PA14
PA15	99	PA15
PC0	22	PC0
PC1	23	PC1
PC2	24	PC2
PC3	25	PC3
PC4	37	PC4
PC5	38	PC5
PC6	80	PC6
PC7	81	PC7
PC8	87	PC8
PC9	88	PC9
PC10	100	PC10
PC11	101	PC11
PC12	102	PC12
PC13		PC13
PE0	125	PE0
PE1	126	PE1
PE2	1	PE2
PE3	2	PE3
PE4	3	PE4
PE5	4	PE5
PE6	5	PE6
PE7	53	PE7
PE8	54	PE8
PE9	55	PE9
PE10	56	PE10
PE11	57	PE11
PE12	58	PE12
PE13	59	PE13
PE14	60	PE14
PE15	61	PE15
PG0	82	PG0
PG1	83	PG1
PG2	84	PG2
PG3	85	PG3
PG4	86	PG4
PG5	103	PG5
PG6	104	PG6
PG7	105	PG7
PG8	106	PG8
PG9	107	PG9
PB0	39	PB0
PB1	40	PB1
PB2	41	PB2
PB3	118	PB3
PB4	119	PB4
PB5	120	PB5
PB6	121	PB6
PB7	122	PB7
PB9	124	PB9
PB10	62	PB10
PB11	65	PB11
PB12	66	PB12
PB13	67	PB13
PB14	68	PB14
PB15	69	PB15
PD0	108	PD0
PD1	109	PD1
PD2	112	PD2
PD3	113	PD3
PD4	114	PD4
PD5	115	PD5
PD6	116	PD6
PD7	117	PD7
PD8	70	PD8
PD9	71	PD9
PD10	72	PD10
PD11	73	PD11
PD12	74	PD12
PD13	75	PD13
PD14	76	PD14
PD15	77	PD15
PF2	26	PF2
PF3	10	PF3
PF4	11	PF4
PF5	14	PF5
PF6	97	PF6
PF7	15	PF7
PF8	16	PF8
PF9	17	PF9
PF10	18	PF10
PF11	48	PF11
PF12	49	PF12
PF13	50	PF13
PF14	51	PF14
PF15	52	PF15

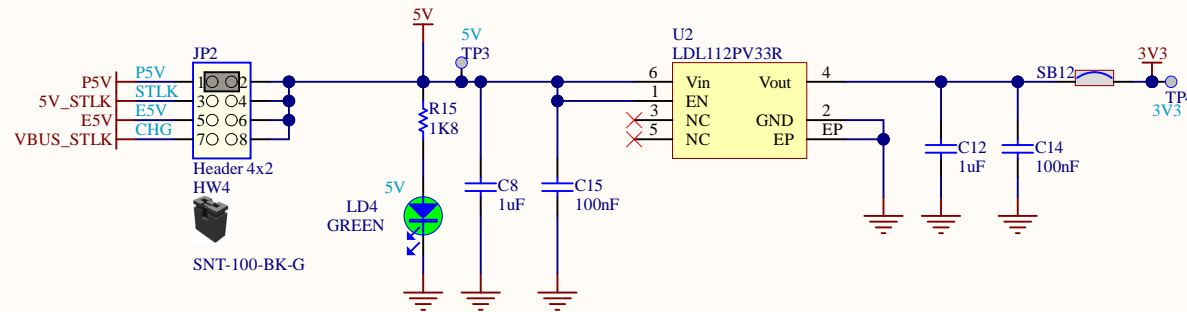
MC V2 signals



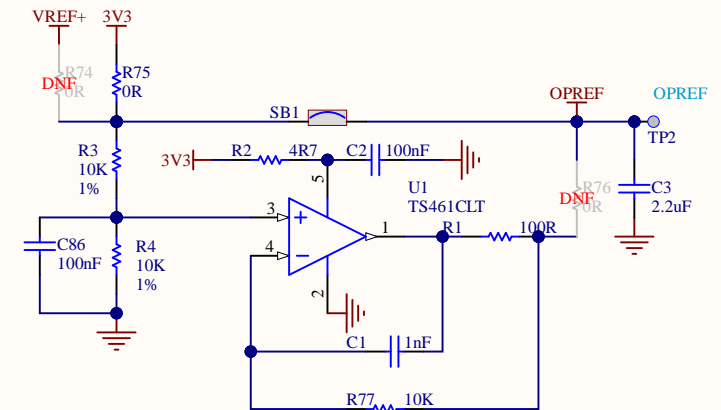
MCU Power part



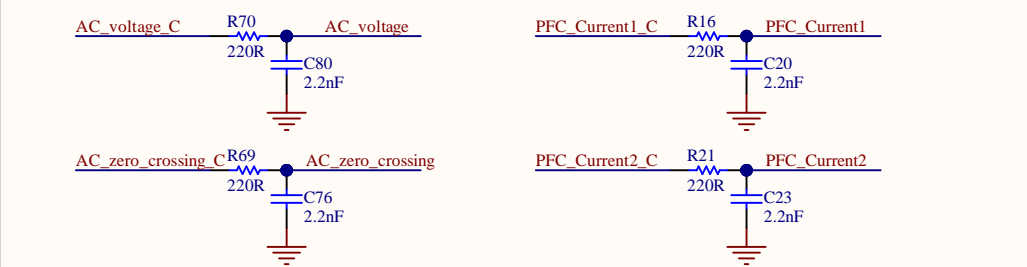
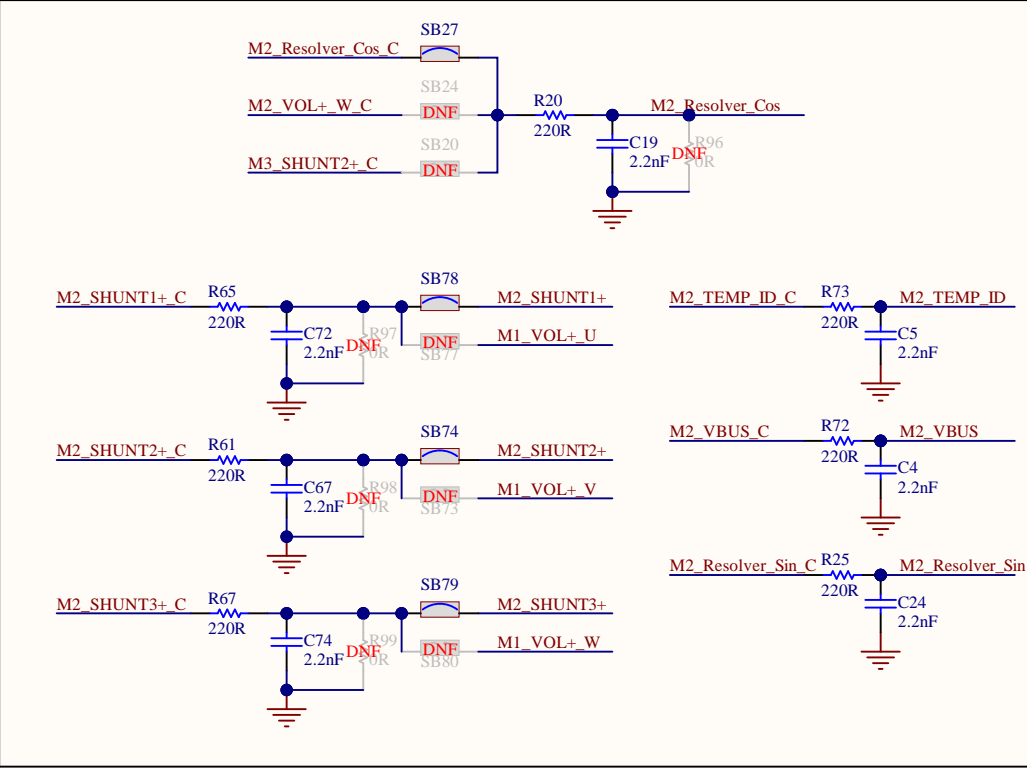
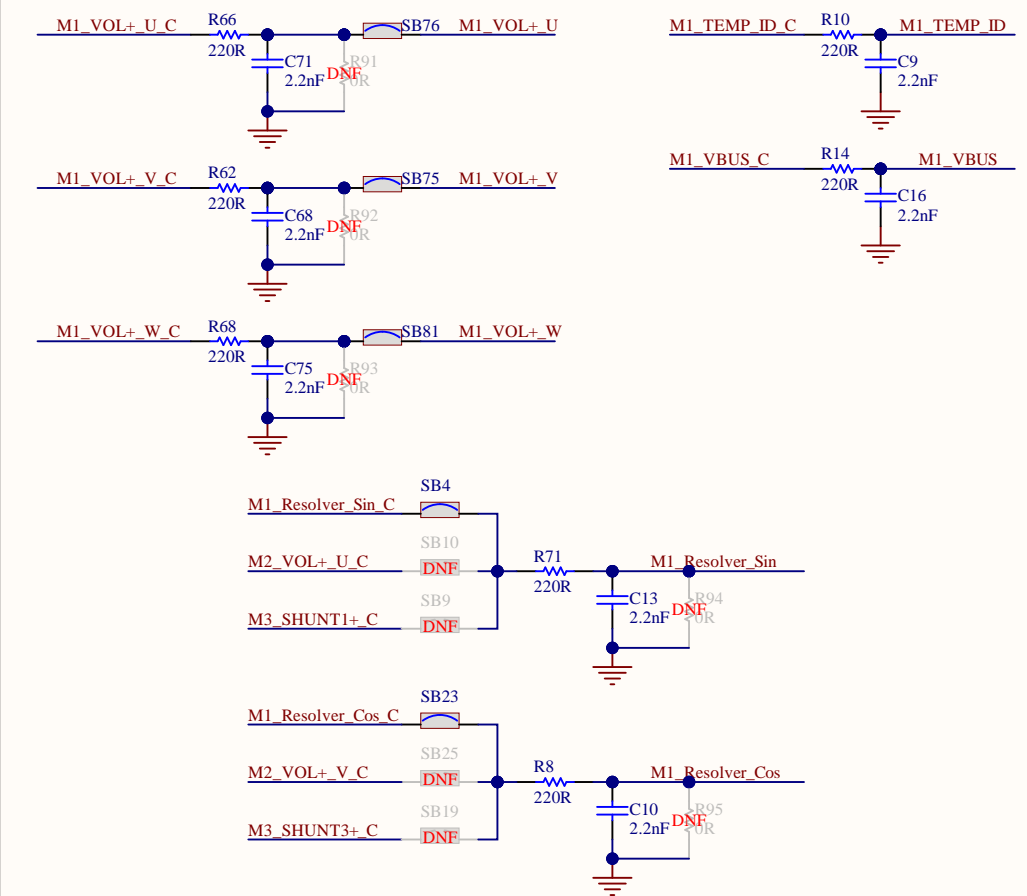
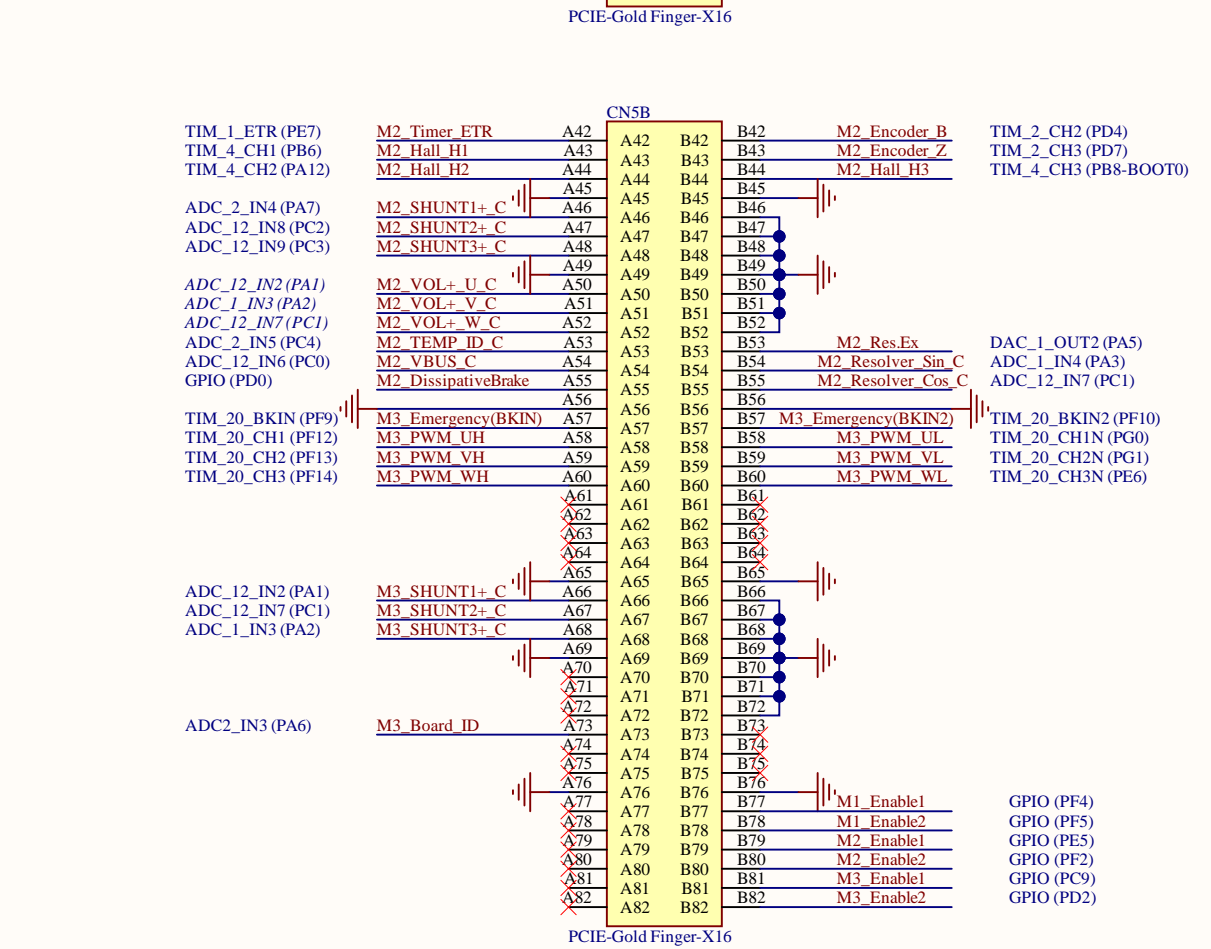
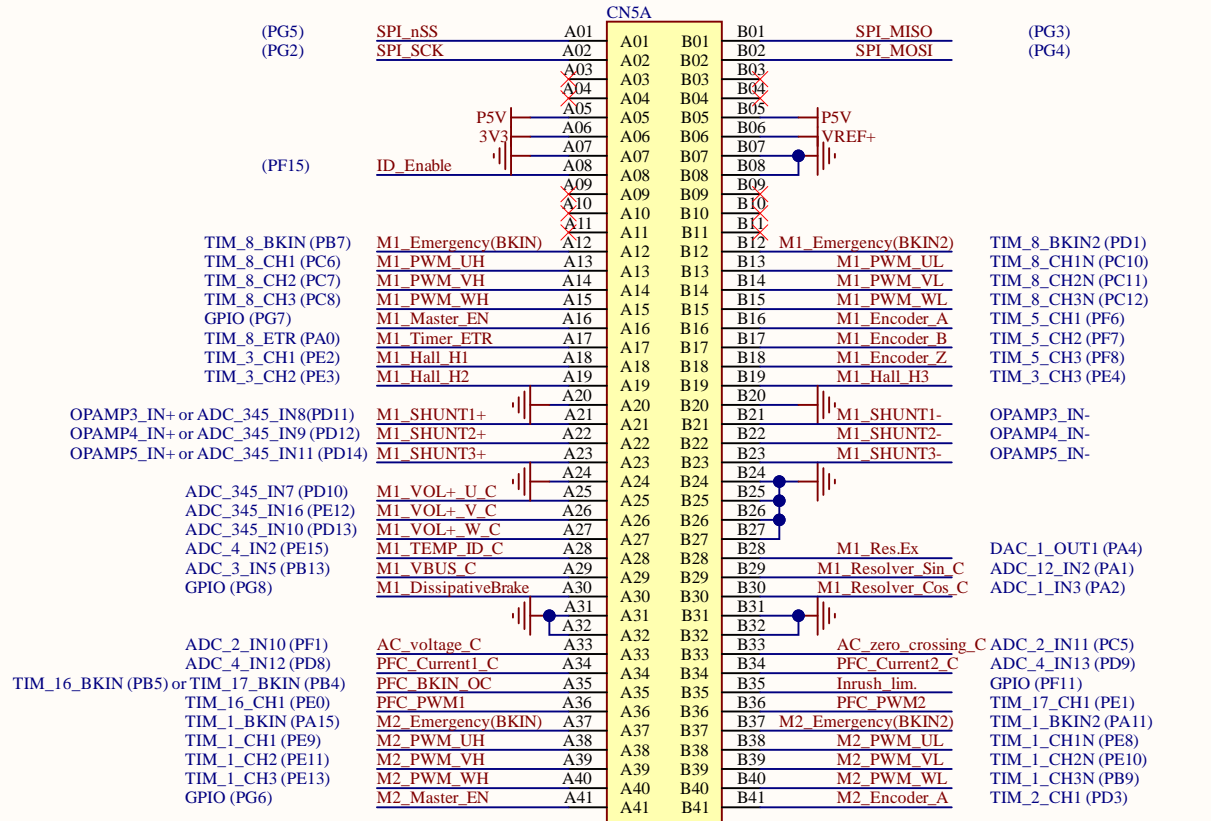
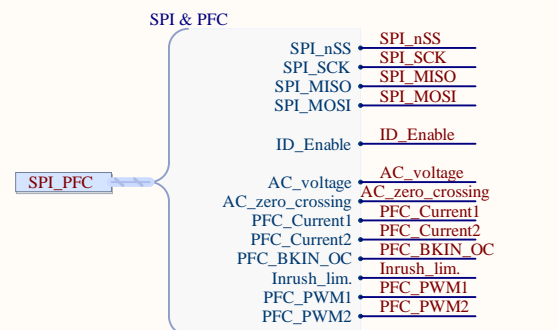
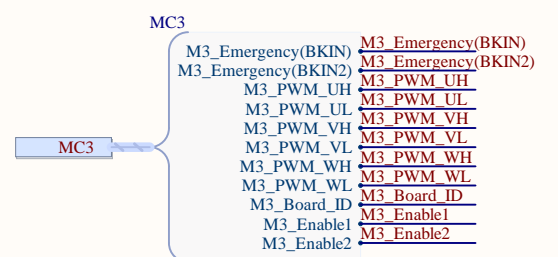
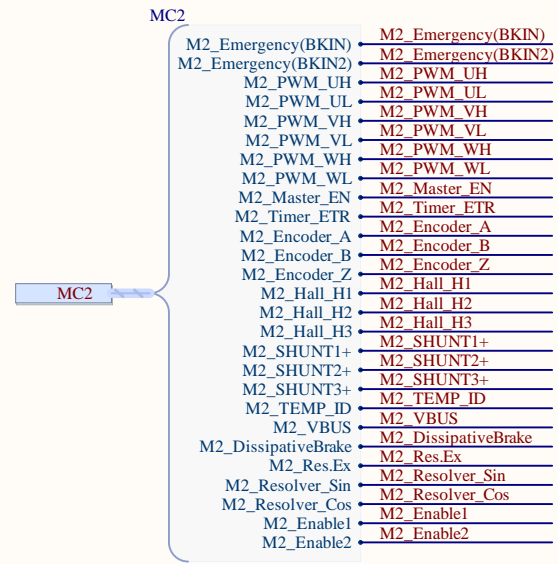
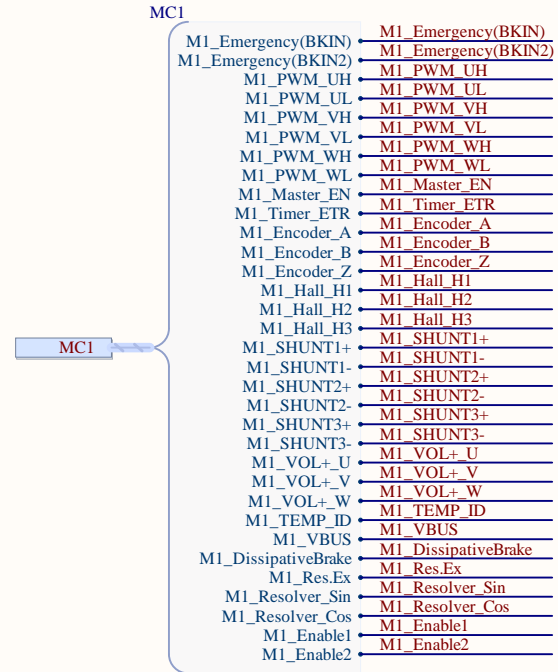
3.3V power



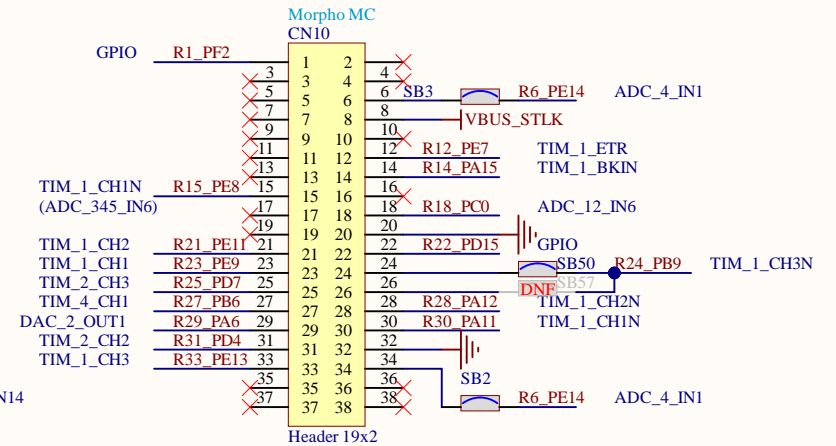
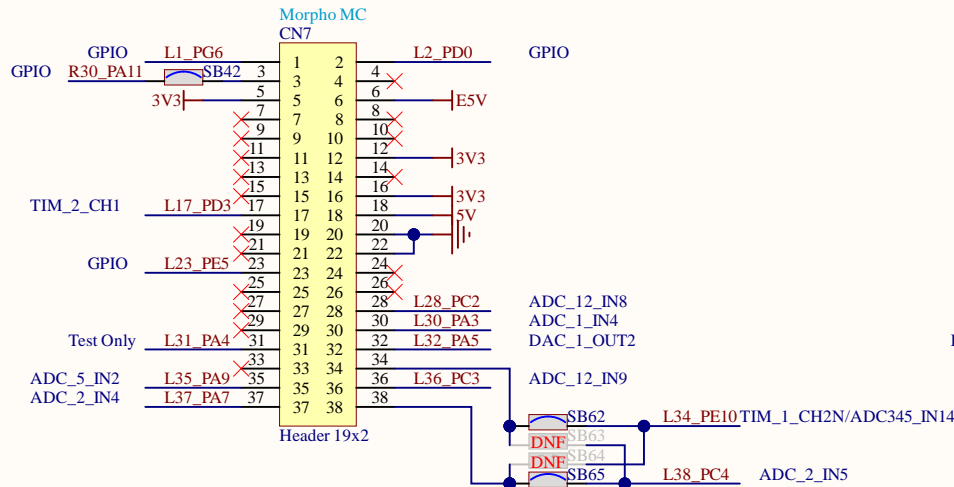
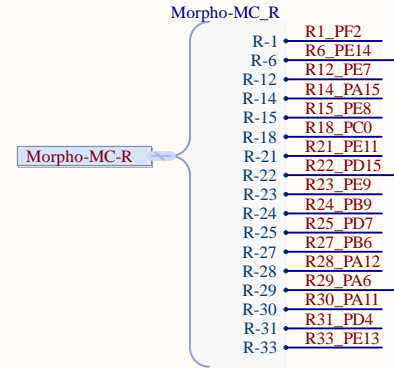
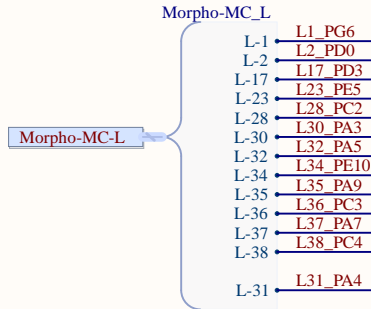
Reference voltage



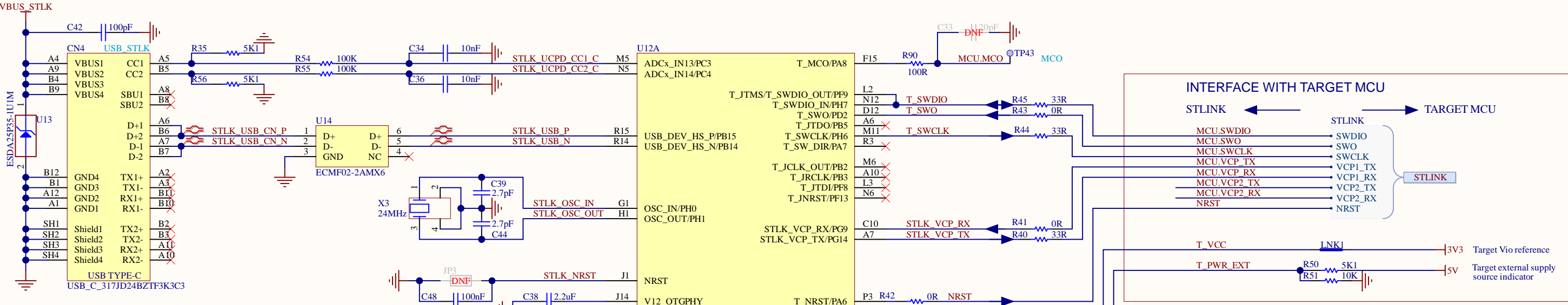
MC Connector V2



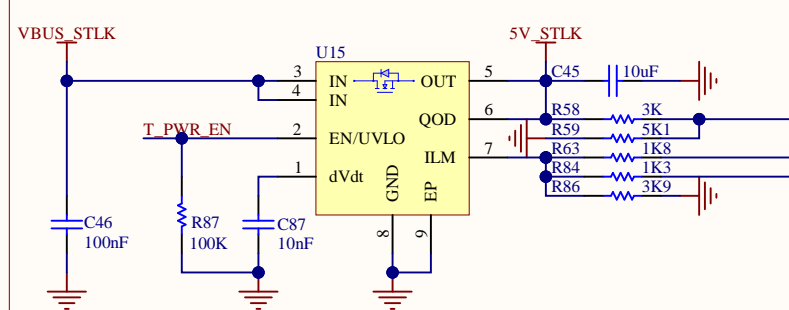
Morpho MC



STLINK-V3EC



5V_STLK OVERVOLTAGE AND OVERCURRENT PROTECTION

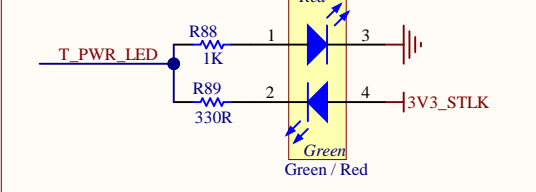


5V_STLK OVERCURRENT PROTECTION MANAGEMENT

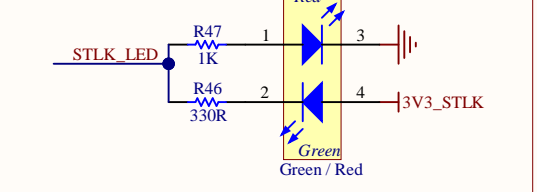
	T_PWR_SEL2/PD5	T_PWR_SEL1/PD4
PowerDefault.SNK (current limit: 550mA)	Hi-Z	Hi-Z
Power1.5.SNK (current limit: 1.66A)	Hi-Z	0
Power3.0.SNK (current limit: 3.2A)	0	0

Hi-Z = IO set in high impedance

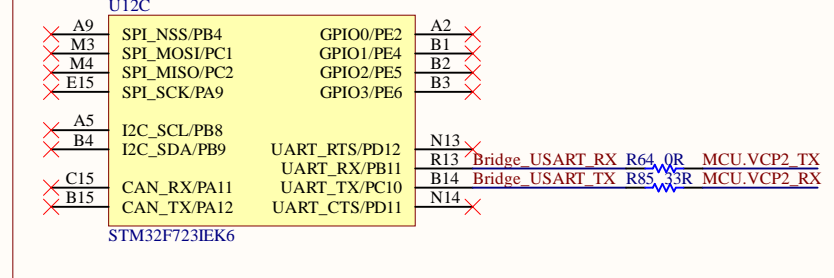
LED POWER STATUS



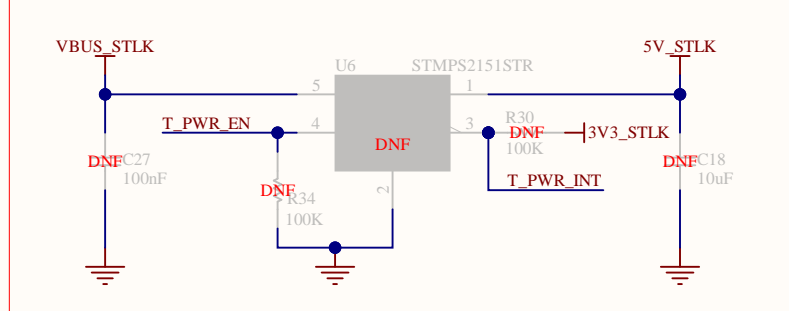
LED STLINK



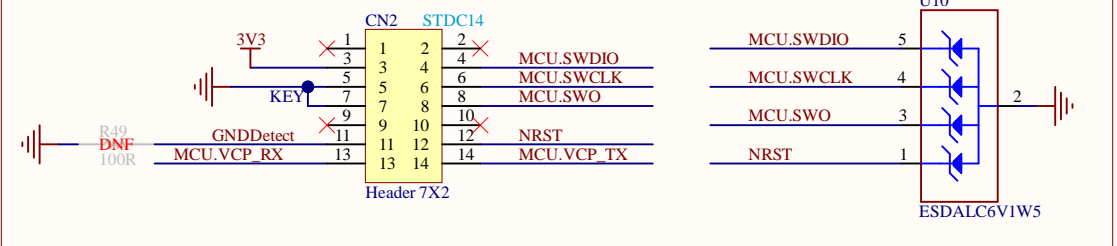
INTERFACE WITH TARGET MCU



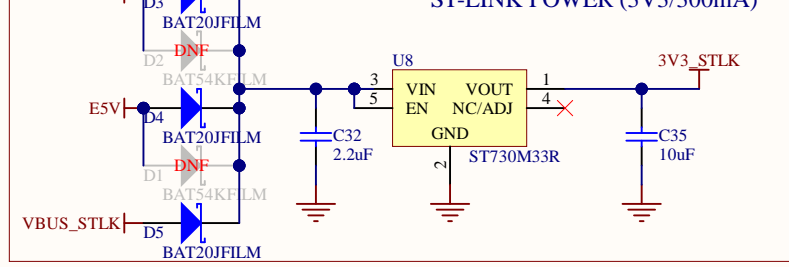
STMP2151STR is backup of the TPS25953DSG



STDC14 RECEIVER



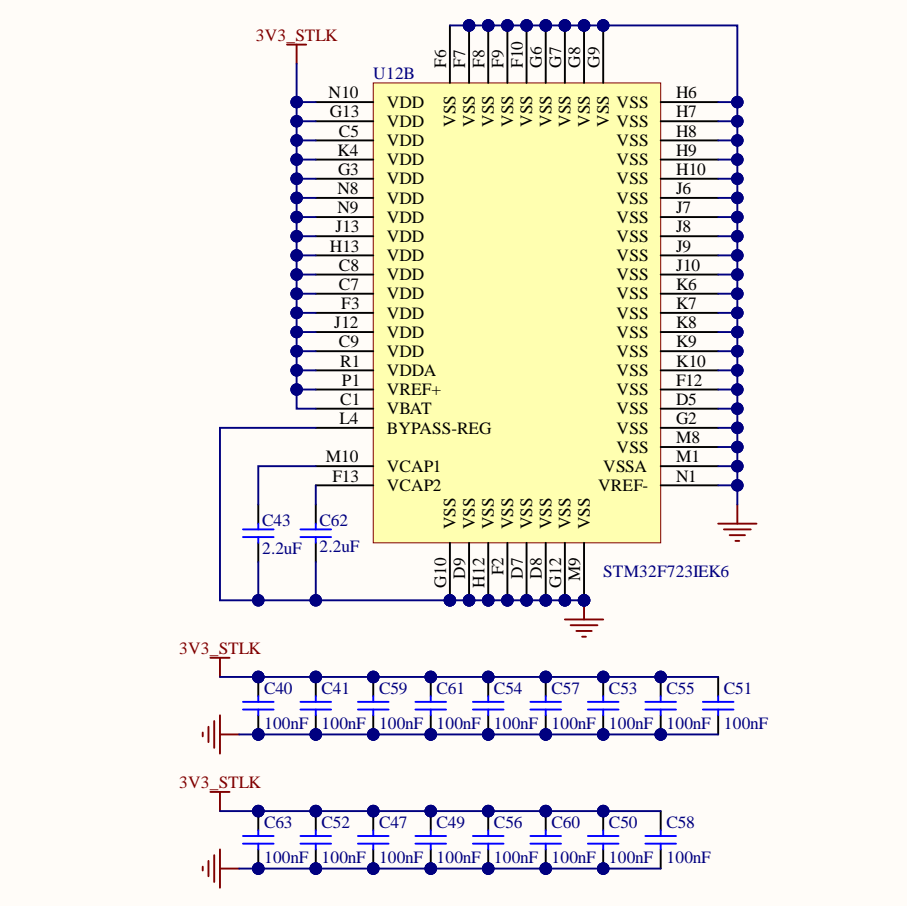
ST-LINK POWER (3V3/300mA)



USART connector



STLINK MCU POWER



HW2

STICKER PRODUCT

Sticker product

HW1

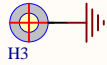
STICKER BOARD

Sticker board

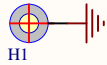
HW7

PCB

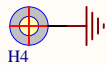
MB1811



H3



H1



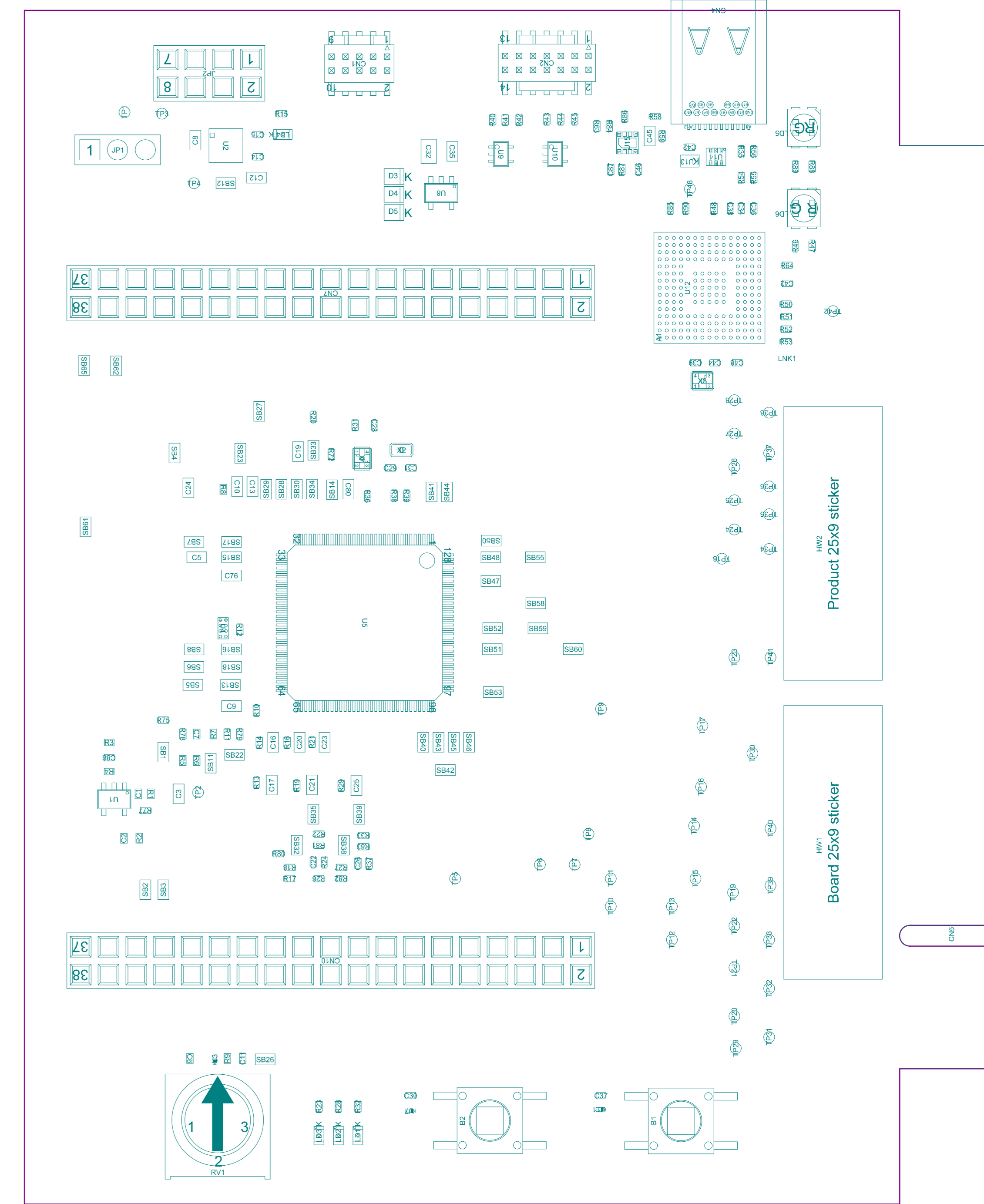
H4




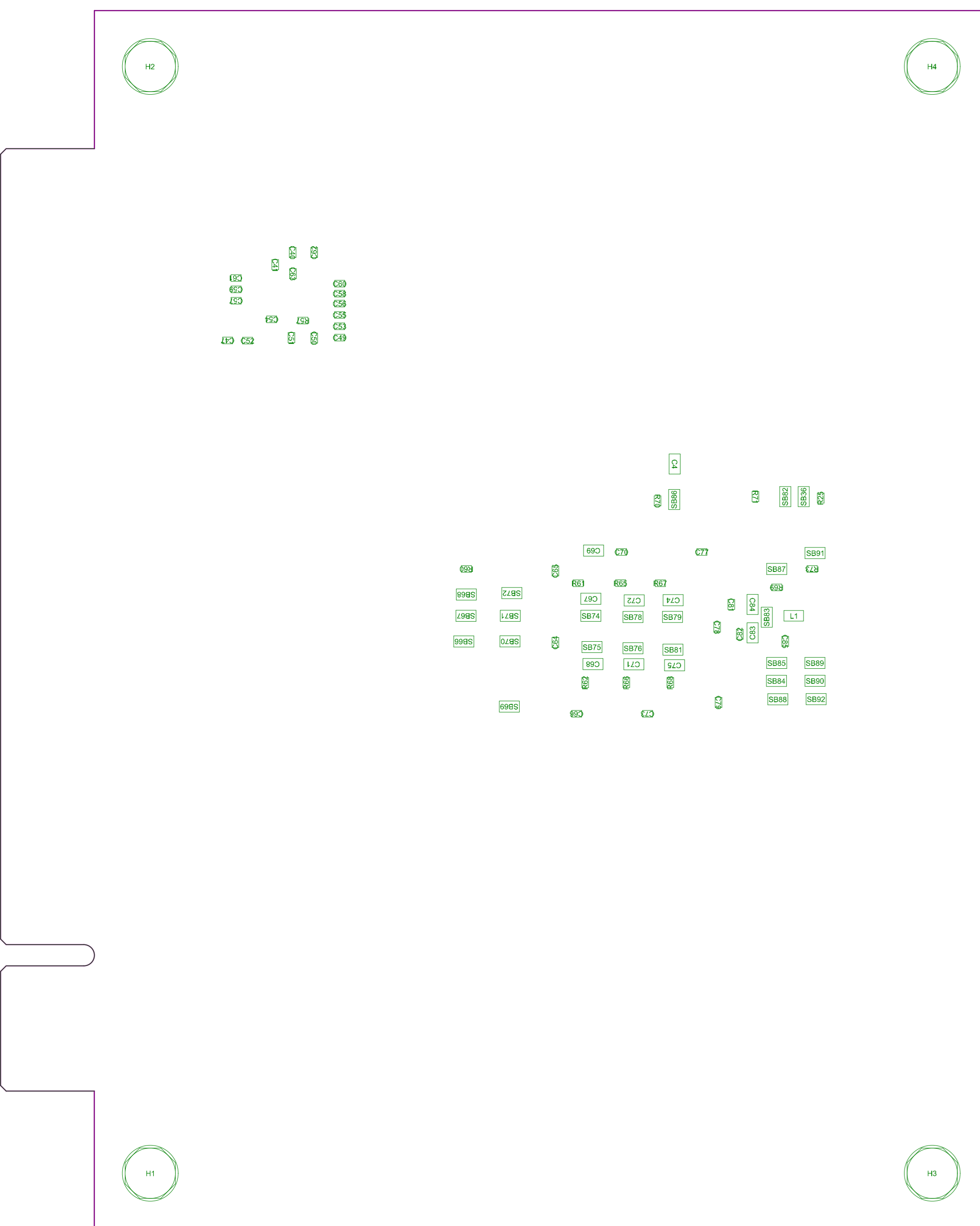
H2


Title: Mechanical		
Project: ZeST MC Disco control board		
Variant: G473QE		
Revision: B-01		Reference: MB1811
Size: A4	Date: 23-MAY-22	Sheet: 8 of 8

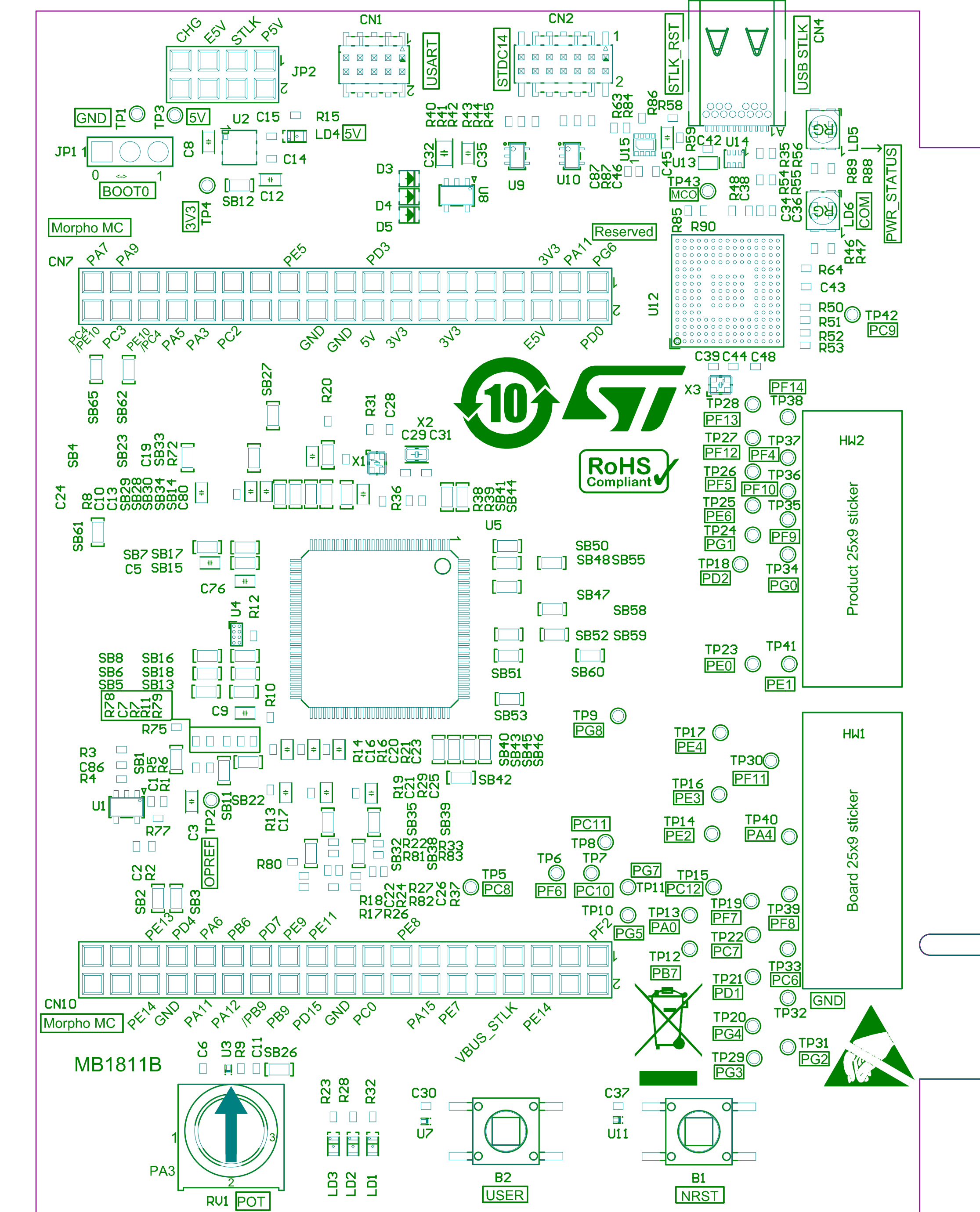




Project: ZeST MC Disco control board		
Layer: M14-Top Assembly	Gerber: .GM14	
Variant: G473QE	Ref: MB1811	
Date: 23-MAY-22	Rev: B	



Project: ZeST MC Disco control board		
Layer: M15-Bottom Assembly	Gerber:.GM15	
Variant: G473QE	Ref: MB1811	
Date: 23-MAY-22	Rev: B	



Morpho Overlay assembly

.GIT04

