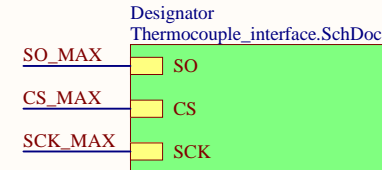
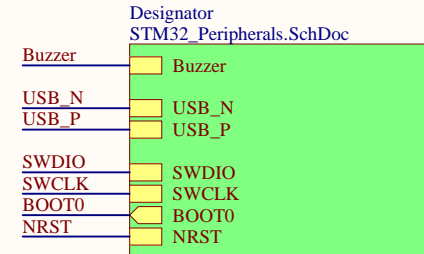
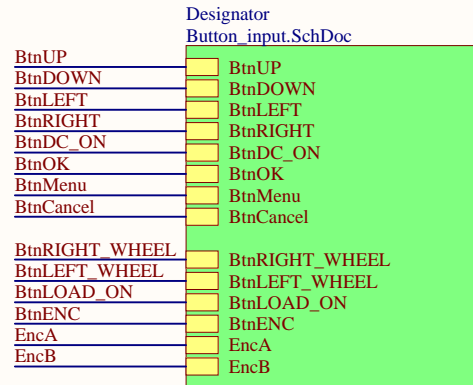
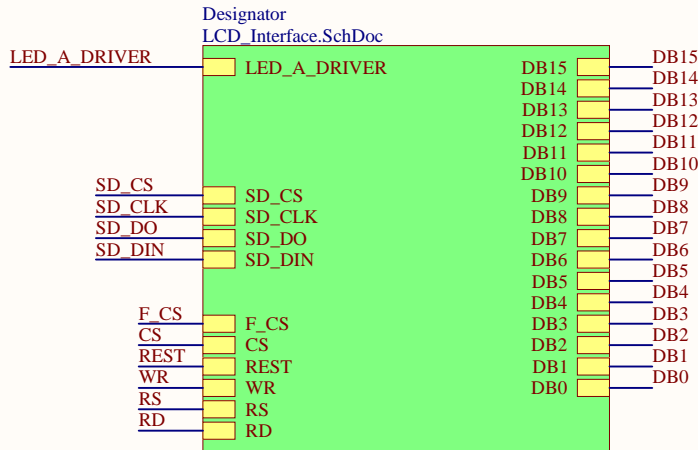


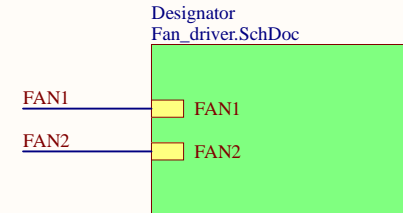
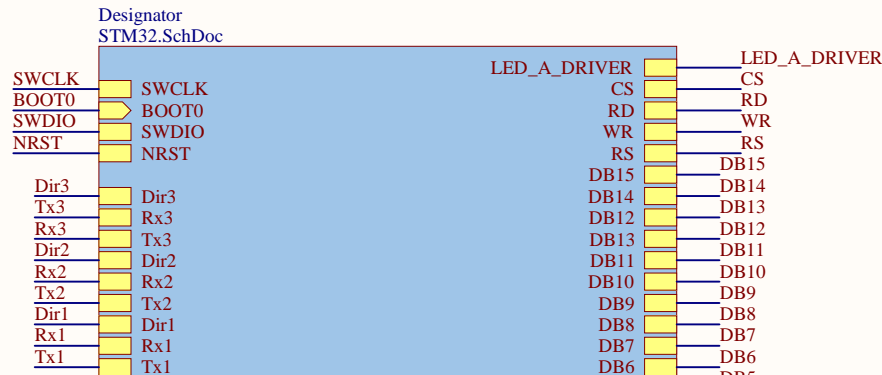
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A



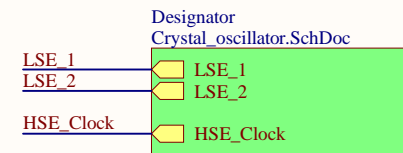
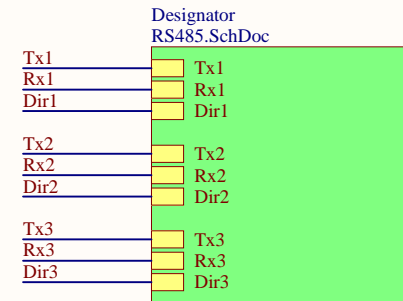
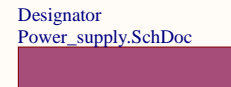
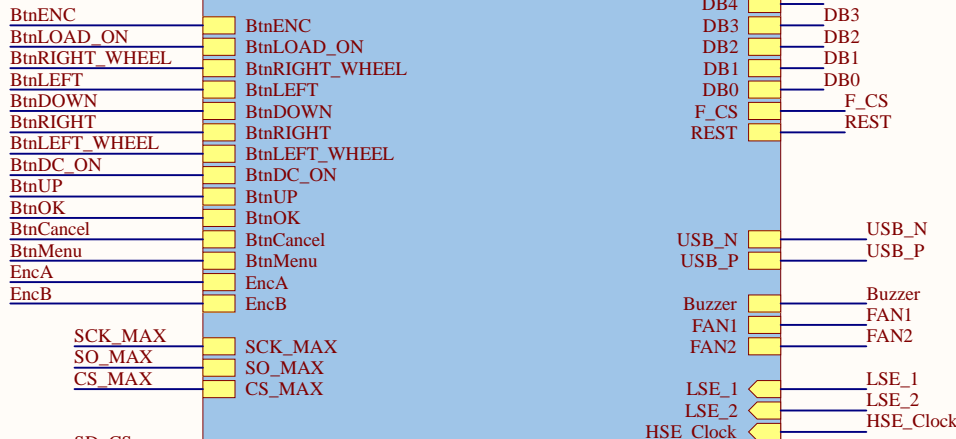
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B



C

C

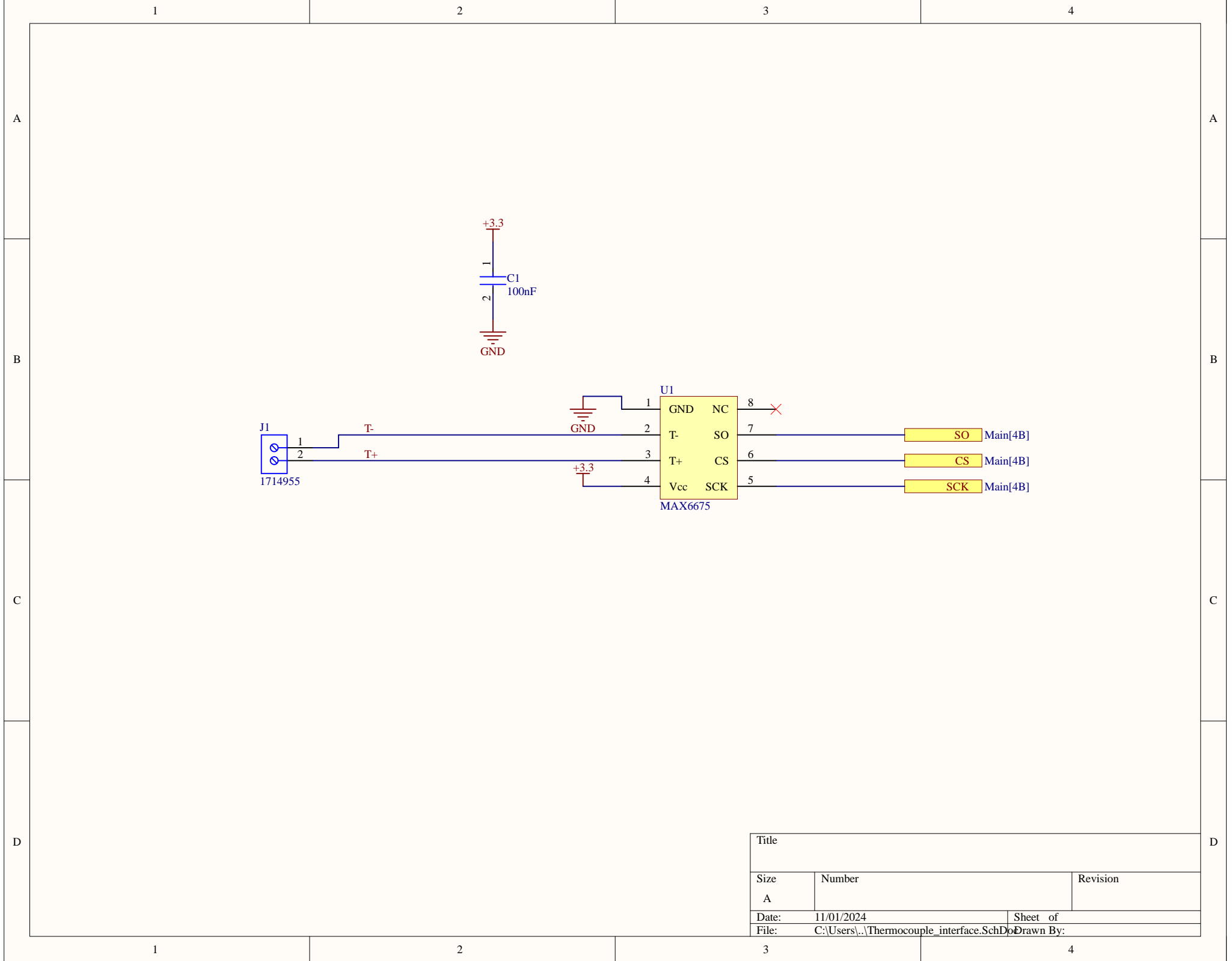


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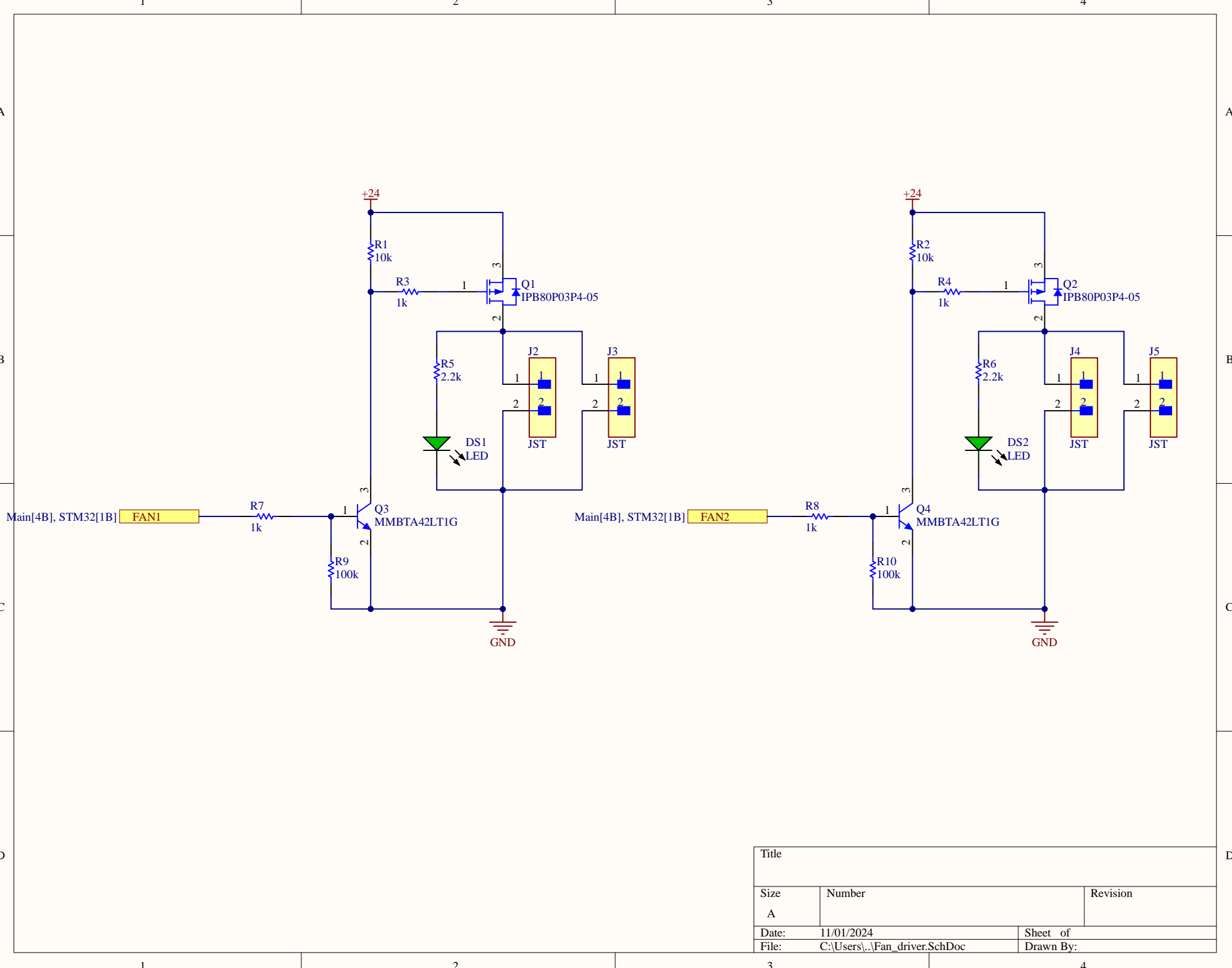
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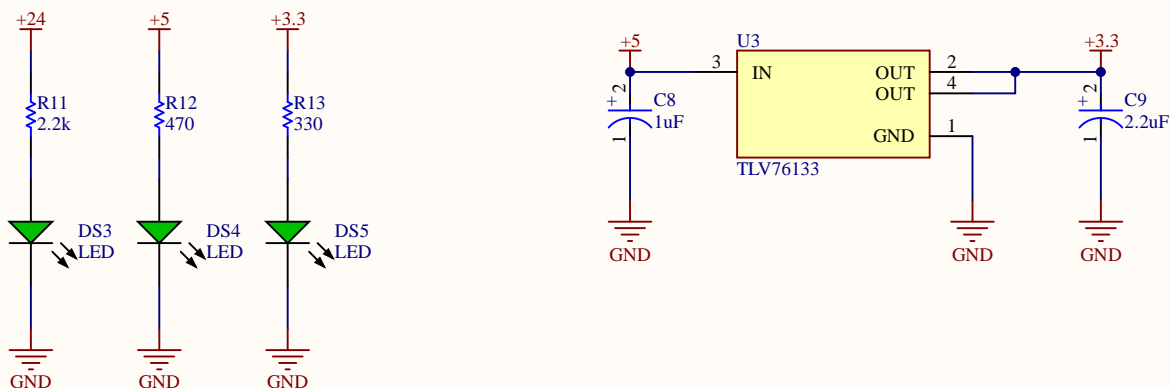
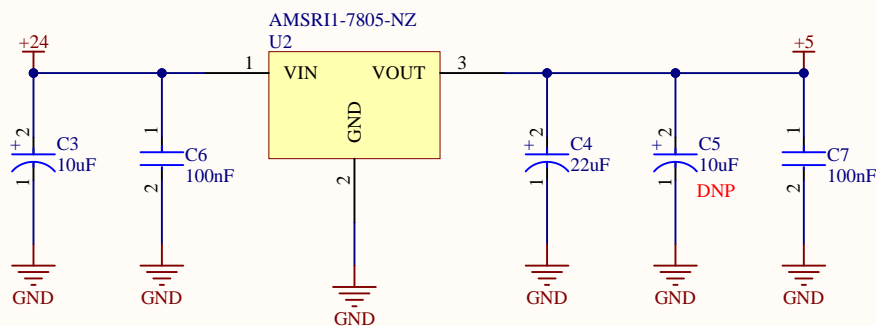
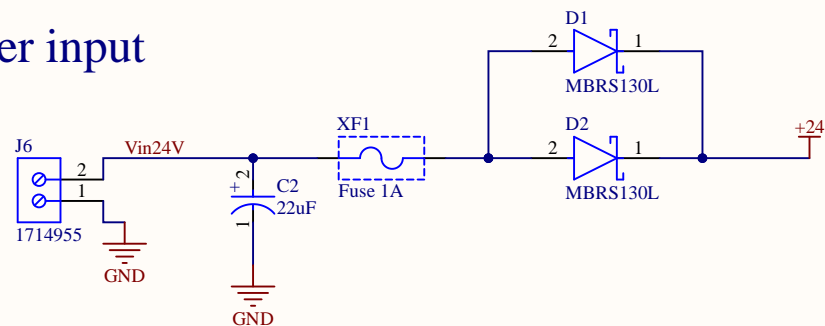


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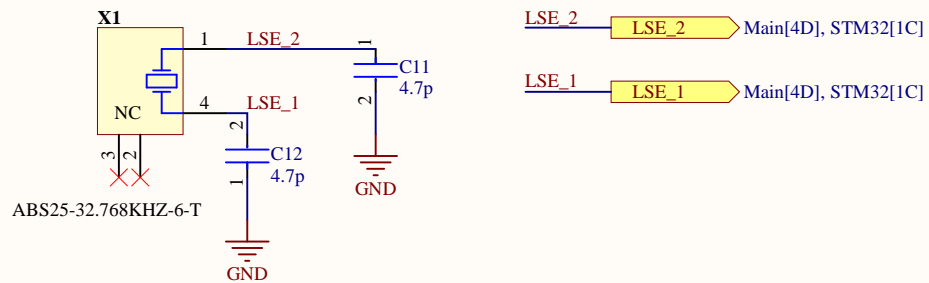
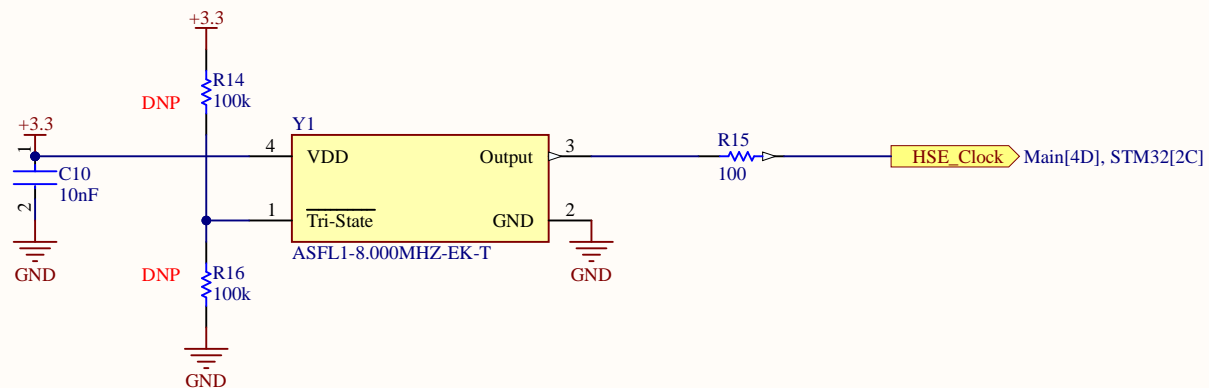


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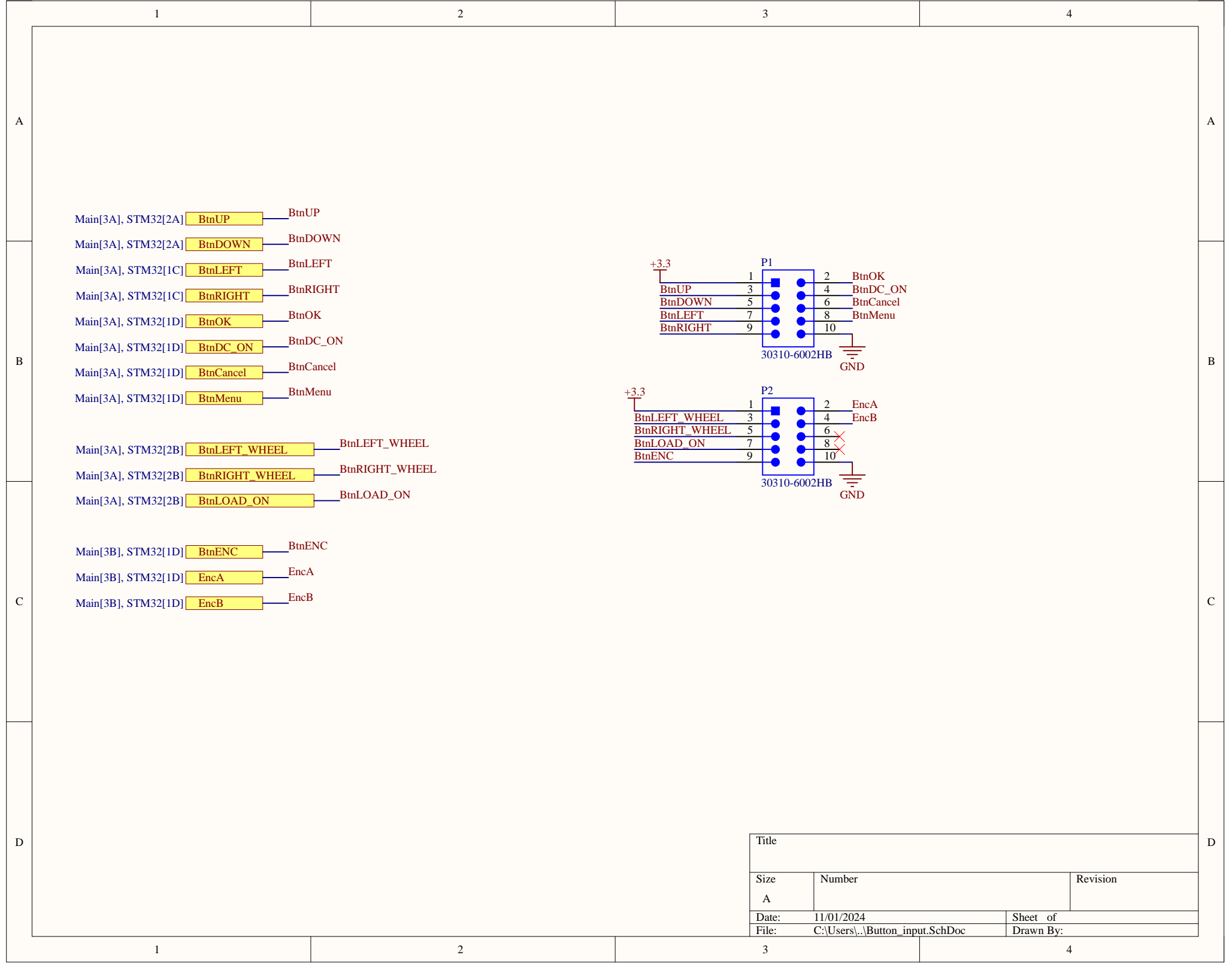
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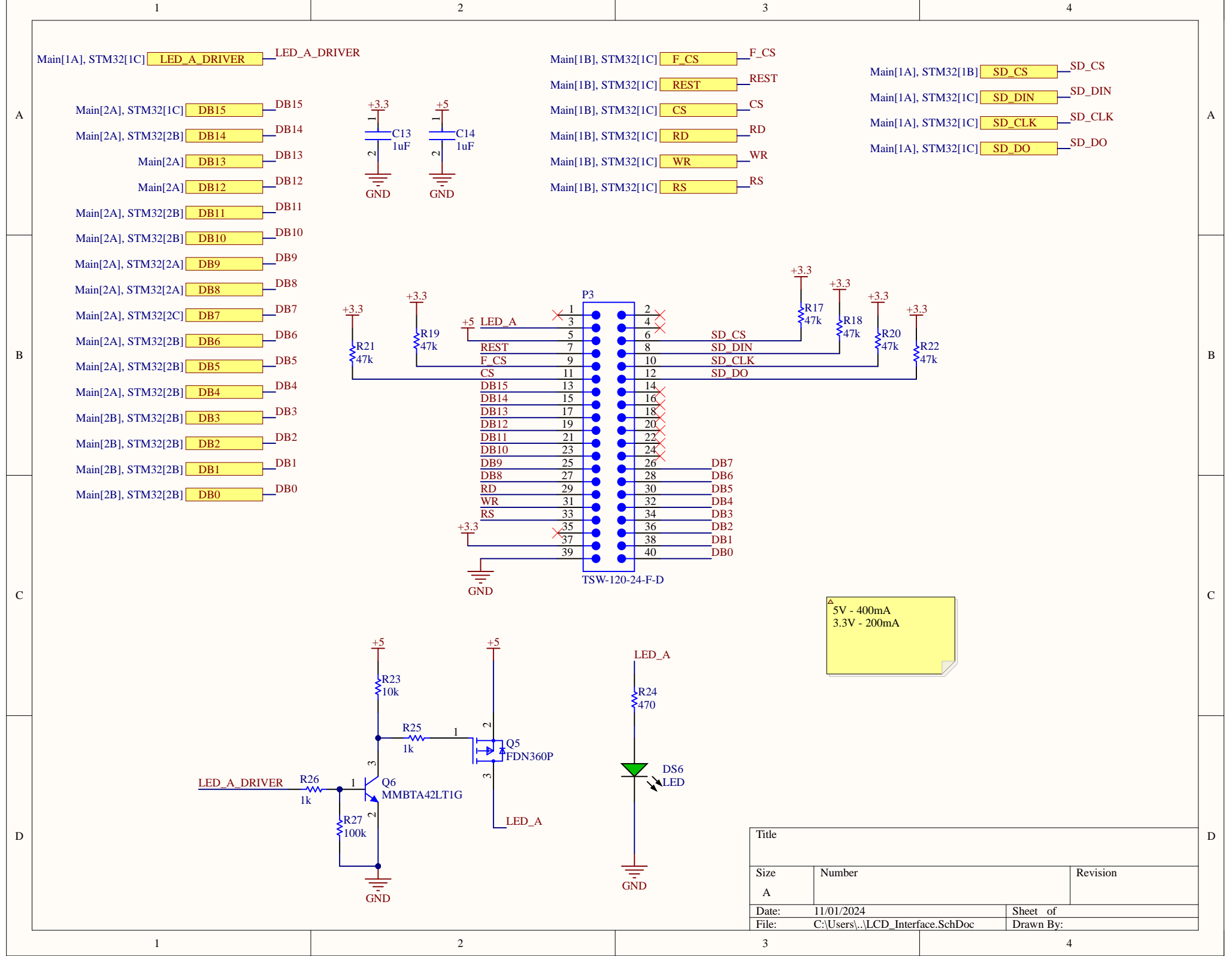


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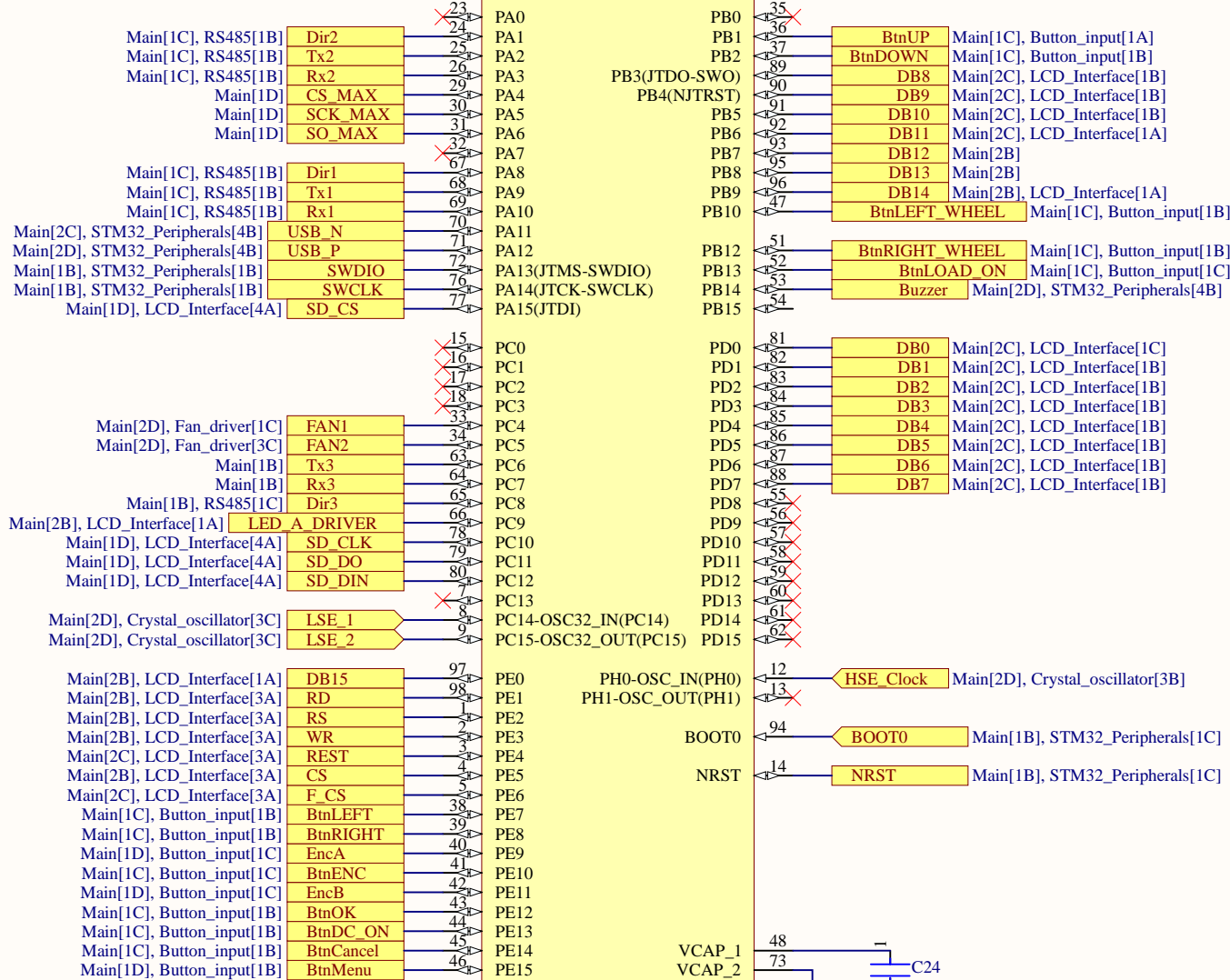
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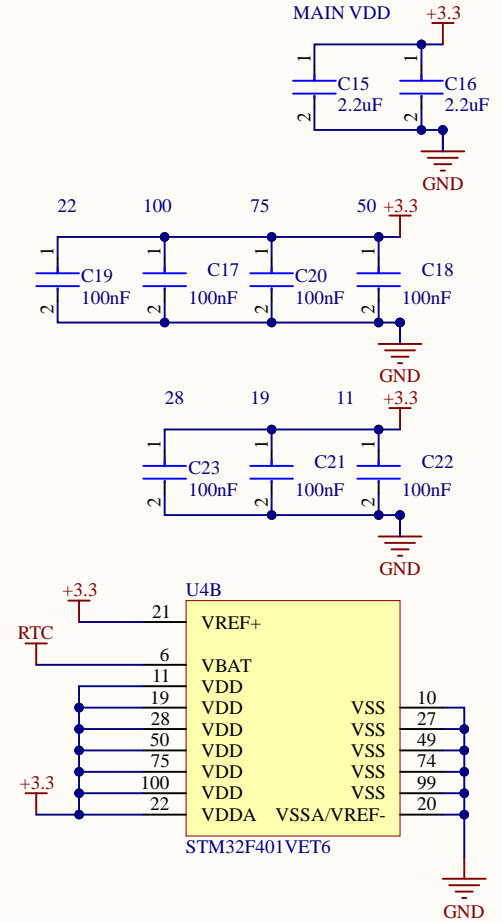
# MICROCONTROLLER

U4A



STM32F401VET6

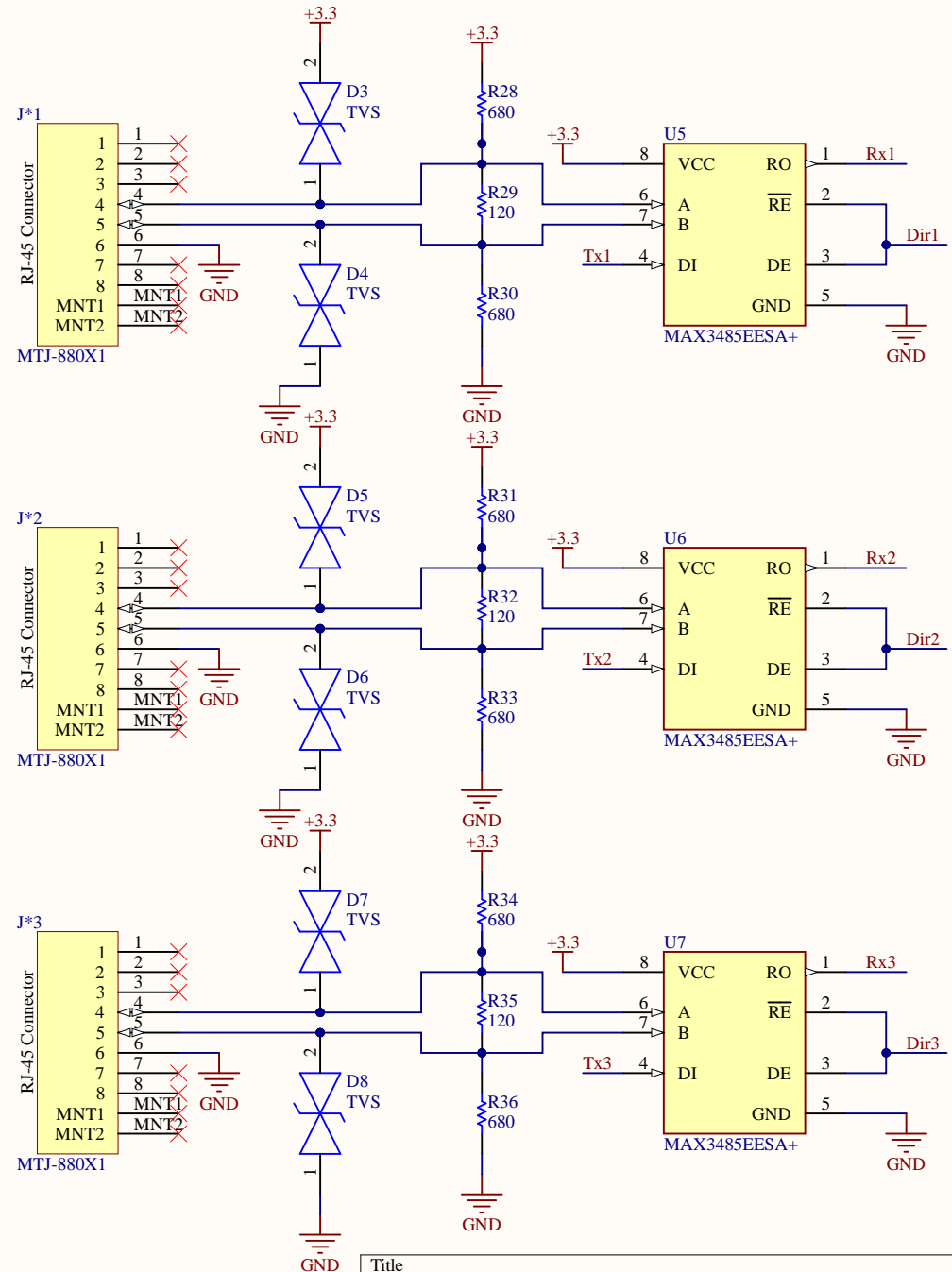
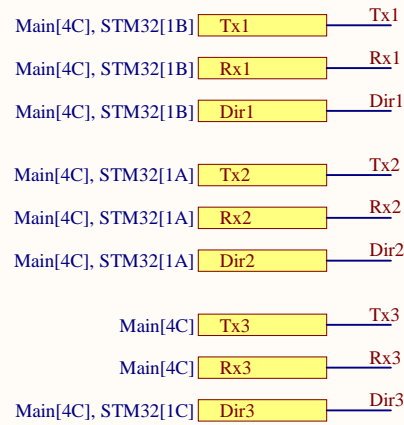
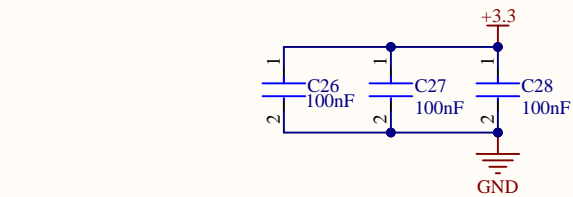
## Power supply filtering



STM32F401VET6

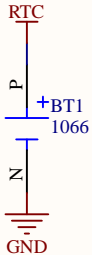
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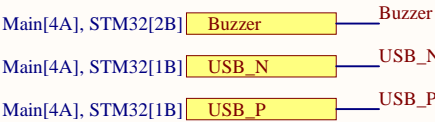
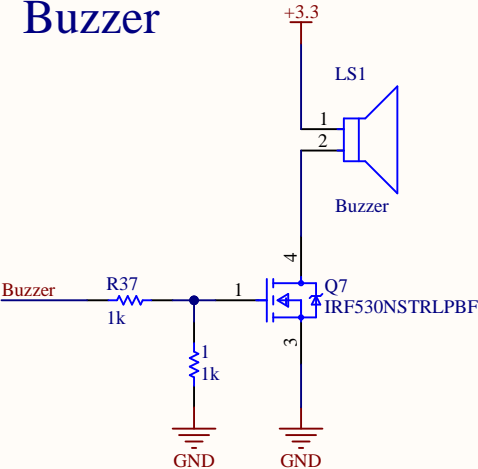


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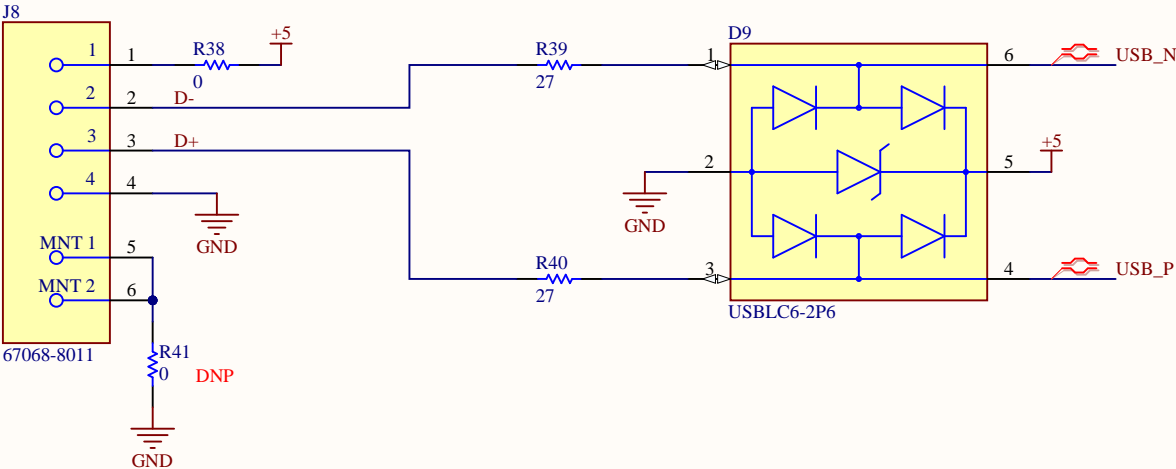
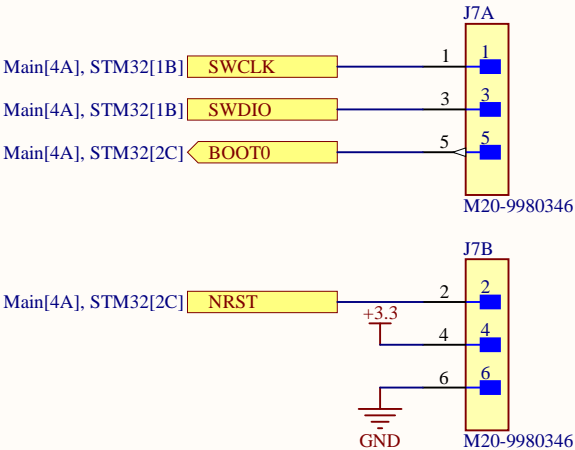
RTC 2032 Battery



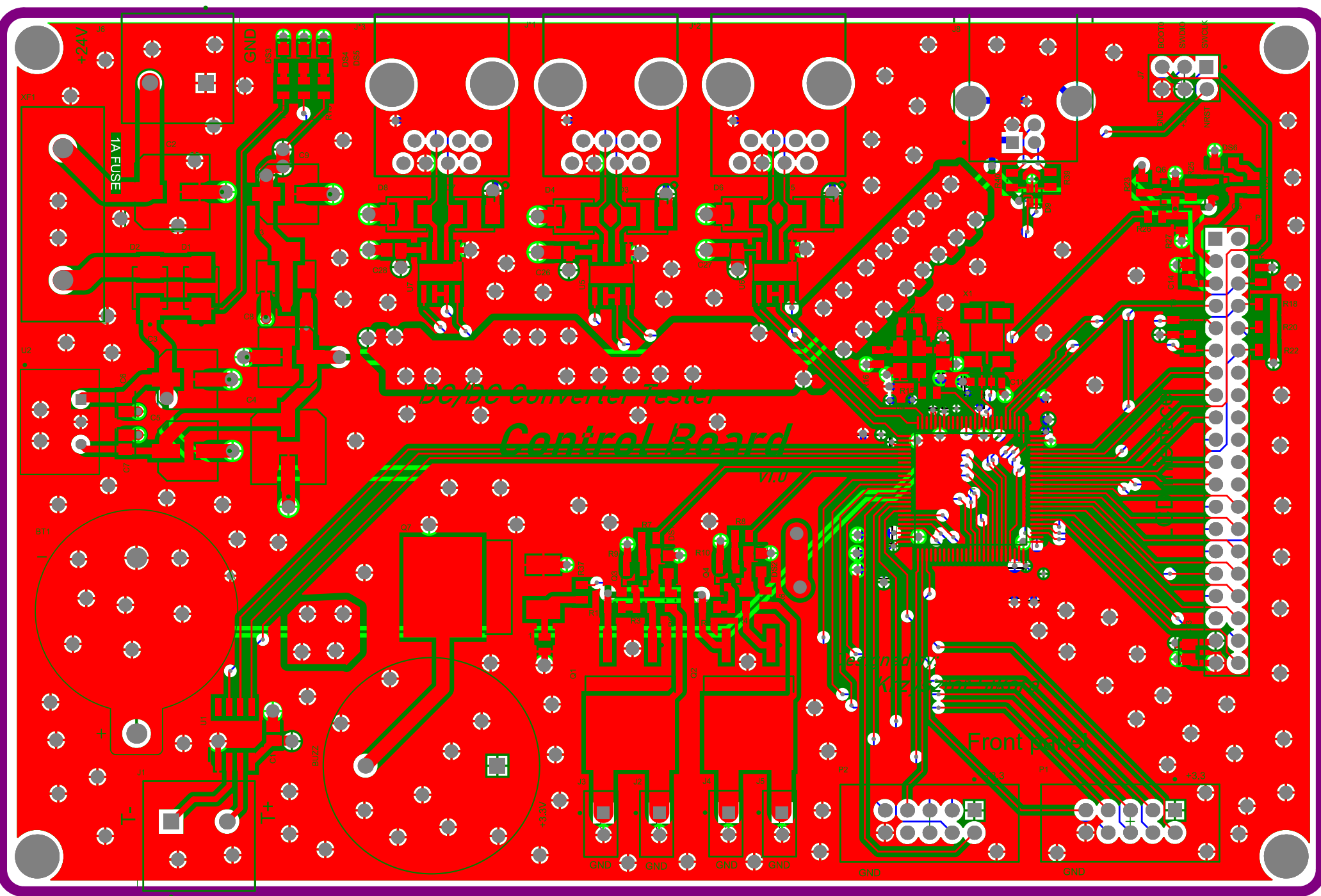
Buzzer



USB B



Title		
Size	Number	Revision
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Comment	Description	Designator	Footprint	LibRef	Quantity
1k		1, R1, R6, R7, R8, R26, R27	RES2013X00X0LL20	2-HP-2001-04886-1	4
100k		R71	RT_100k	100k	1
100nF	General Purpose Ceramic Capacitor, 0805, 100nF, 10%, X7R, 10%, 100V, General Purpose Ceramic Capacitor, 0805, 10nF, 10%, X7R, 15%, 100V	C1, C6, C7, C26, C27, C28	FR0805L_2_01_0.2- V_1.25-IPC.B	QMP-2007-04174-2	6
22uF	CPAPALUM 22uF 20%, 50V SMD	C2, C4	PPCEMFG	QMP-05407-002128-1	4
10uF	CPAPALUM 10uF 20%, 50V SMD	C3, C5	PPHDMFG	QMP-2000-060207-2	2
1uF	CPAPALUM 1uF 20%, 50V SMD	C8	PPHDMFG	QMP-2000-060207-2	1
2.2uF	CPAPALUM 2.2uF 20%, 50V SMD	C9	PPHDMFG	QMP-2000-060207-2	1
10nF	General Purpose Ceramic Capacitor, 0805, 10nF, 10%, X7R, 15%, 100V	C10	FR0805L_2_01_0.2- V_1.25-IPC.B	QMP-2007-04174-2	1
4.7p	CAPOB93 1uF 50V X7R0803	C11, C12	PPC0003CFMFG	QMP-2006-03061-2	2
1uF	General Purpose Ceramic Capacitor, 0805, 100nF, 10%, X7R, 10%, 100V	C13, C14	FR0805L_2_01_0.2- V_1.25-IPC.B	QMP-2007-04174-2	2
2.2uF	General Purpose Ceramic Capacitor, 0805, 10nF, 10%, X7R, 15%, 100V	C15, C16, C24, C25	FR0805L_2_01_0.2- V_1.25-IPC.B	QMP-2007-04174-2	4
100nF	Cap Ceramic 100nF 50V X7R 10% Rad-504 0603+125°C	C17, C18, C19, C20, C21, C22, C23	PPC04050_3-0.1- IPC.A	QMP-2000-07546-2	7
ME8030L	ME8030L Rectifier Diode, Schottky, 1 Phase, 1 Element, 2A, 30V VRRM, Silicon, DO-214AA	D1, D2	FR403AFMFG	QMP-00279-2036186-1	2
TVS	TVSDIODE28.2V18W SMB	D3, D4, D6, D8, D7, D9	FRSMBMFG	QMP-12225-000039-1	6
UBLOP-3P6	TVSDIODE5.25V 17V SMB	D5	PPSOT666-MFG	QMP-12225-000039-1	1
LED	Chip LED, Green, 2.2 V, -40 to 85 degC, 2- Pin SMD, Ro-Free, Tape and Reel	D51, D52, D53, D54, D55, D56	A/AGHSMDV170_V	QMP-2000-09002-1	6
1714855	PC Terminal Block, Pitch 6.35mm, 1+2, Position, Height 21.5 mm, Tail Length 5.1 mm, RoHS Bulk	J1, J6	PHOE1714855_V	QMP-2000-050797-1	2
87	CONN HEADER P0C22.5MM	J2, J3, J4, J5	FR0805B4LJF.5M MFG	QMP-17429-000026-1	4
MD-9800346	CONN HEADER P0C22.5MM	J7	FRMD0-9800346-MFG	QMP-2000-080036-2	1
67068-8011	67068-8011 Conn USB 2.0 Type B RCP 4 POS 2.5mm Stagger RA Thru Hole 4 Terminal 1 Port USB 2.0 Tray	J8	FR67068-8011-MFG	QMP-00257-00042133-1	1
MTJ880X1	ALDO P120	J1, J2, J3	MTJ880X1	MTJ880X1	3
Buzzer	TRANSUCER 3-15V 1H	LS1	FRPH24KPC0001- BMFG	QMP-00203-000001-2	1
30X10-6002-B	Main Header, Pitch 2.54mm, 2 x 5 Position, Height 9.3 mm, Tail Length 2.75 mm, -55 to 105 degC, RoHS Bulk	P1, P2	3M-30X10-6002-B- V_V	QMP-2000-090031-1	2
TSV-120-24-F-D	1.025" 60 Pin Header, Through- Hole, Vertical, -55 to 125 degC, 2.54mm Pitch, 40 Pin, Male, RoHS	P3	SMTC TSV-120-24-V- D	QMP-1024-00463-1	1
FB83P04-05	5pin MOSFET Power- Transistor, -30V VDS, 80 A ID, PGTO283-3, 2, Red, Green	Q1, Q2	INFPGTO283-3-2_N	QMP-1138-00028-1	2
MW8TA42L7G	High Voltage Transistor, NPN Silicon, 3Pin SOT-23, Pu-Free, Tape and Reel	Q3, Q4, Q6	CHNSOT-23-3-318- XL_V	QMP-1048-00862-1	3
FXN300P	MOSFET P-CH 30V 2A SOT23	Q5	FRS27AG-IPC.B	QMP-2000-07455-3	1
PP53UNSTRUF	MOSFET N-CH 100V 17A D5PW	Q7	FRPGTO283-3-MFG	QMP-12201-000039-1	1
10k		R1, R2, R23	RES2013X00X0LL20	QMP-2001-04886-1	3
2.2k		R6, R8, R11	RES2013X00X0LL20	QMP-2001-04886-1	3
100k		R9, R10, R14, R16, R27	RES2013X00X0LL20	QMP-2001-04886-1	5
47k		R12, R24	RES2013X00X0LL20	QMP-2001-04886-1	2
330		R13	RES2013X00X0LL20	QMP-2001-04886-1	1
100		R15	RES2013X00X0LL20	QMP-2001-04886-1	1
47k		R17, R18, R19, R20, R21, R22	RES2013X00X0LL20	QMP-2001-04886-1	6
680		R28, R31, R31, R33, R34, R35	RES2013X00X0LL20	QMP-2001-04886-1	6
120		R29, R32, R36	RES2013X00X0LL20	QMP-2001-04886-1	3
0		R38, R41	RES2013X00X0LL20	QMP-2001-04886-1	2
27		R39, R40	RES2013X00X0LL20	QMP-2001-04886-1	2
MAX6675		U1	3006	MAX6675	1
AM91-7805-NZ	MAX91-7805-NZ, 5V/ 1A DC Output converter	U2	3P7805WFP254.1400 H101033	AM91-7805-NZ	1
TLV76133	TLV76133 1.4 18V V High-Precision voltage regulator 4 SOT-223-40 to 125 °C	U3	PPDC0004-MFG	QMP-00370- 13434846-1	1
STM32F401VET6	MCU ATPL 512 KB Flash, 80 KB Internal RAM, 81 VDC, 100 PPA, LQFP, -40 to 85 degC, Tray	U4	STM-LQFP100.L	QMP-0243-00195-1	1
MAX485E2E+	IC TRANSCEIVER 422 10MFS SMD	U5, U6, U7	FRS9-5-MFG	QMP-00679-000036-1	3
AE825-32.768M-0-6-T	Low Frequency Crystal, 32.768 MHz, 6 pF, +/-20ppm, -40 to 85 degC, 4-Pin SMD, Reel 6, Tape and Reel	X1	APRA-AE825-4_V	QMP-2000-030036-1	1
Fuse 1A	NTC Oscillator 8MHz	XP1	080700030032	QMP-1932-00295-2	1
ASFL1-4-000M-0-0-KT	0.00ppm HCMOS, TTL, 3.3V 4-SMD 5mm x 3.2mm	Y1	FRASFL1-MFG	QMP-27762-013261-1	1