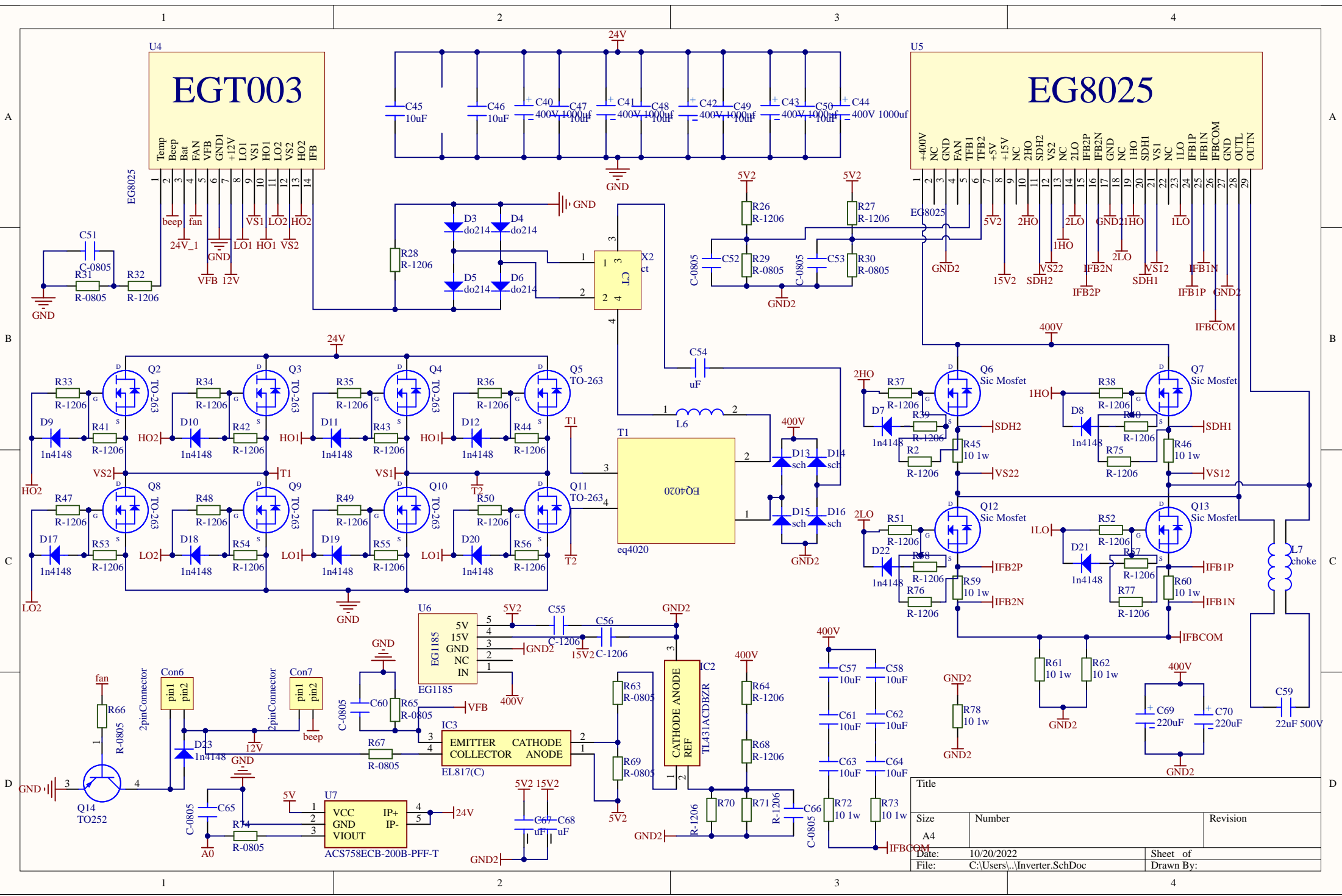
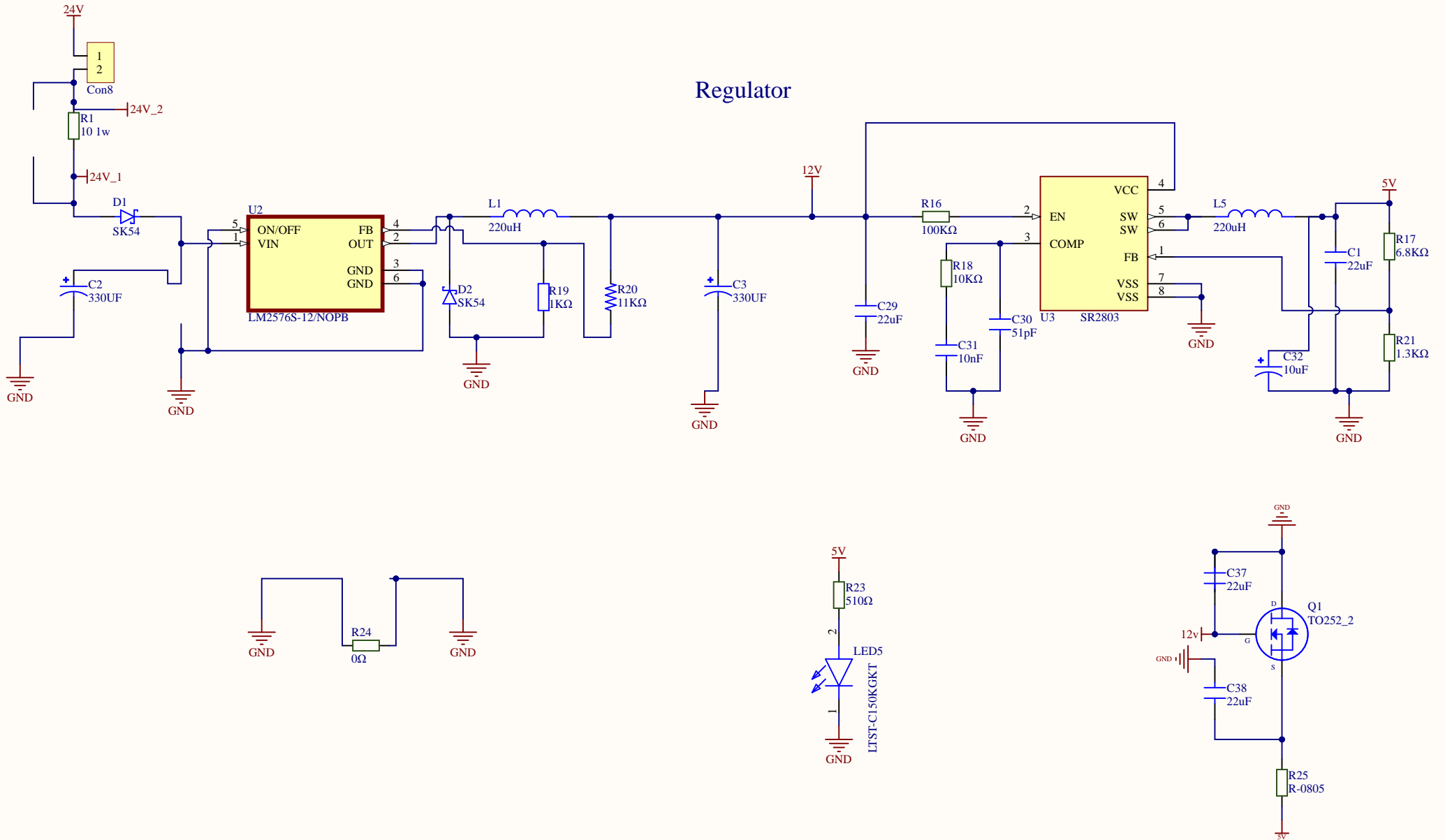


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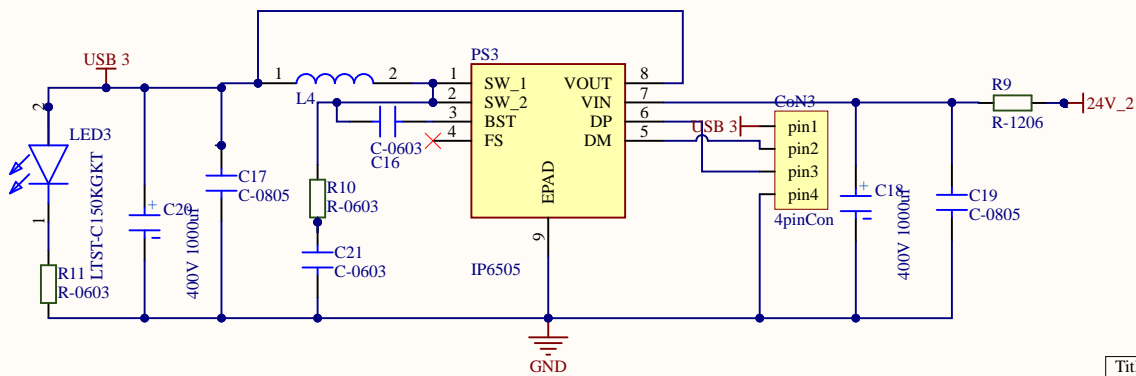
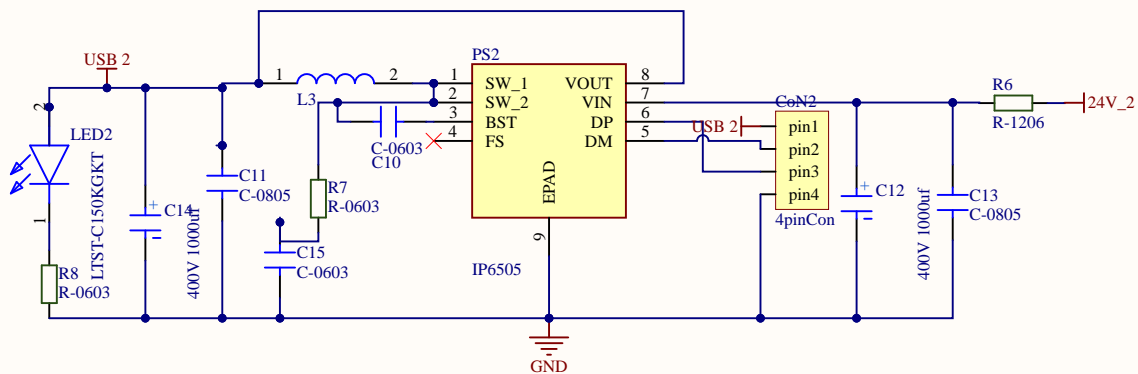
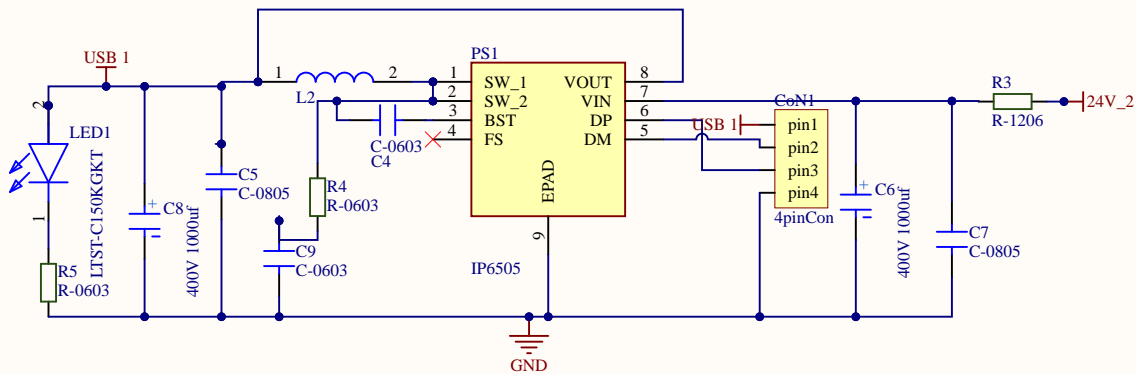


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# Regulator



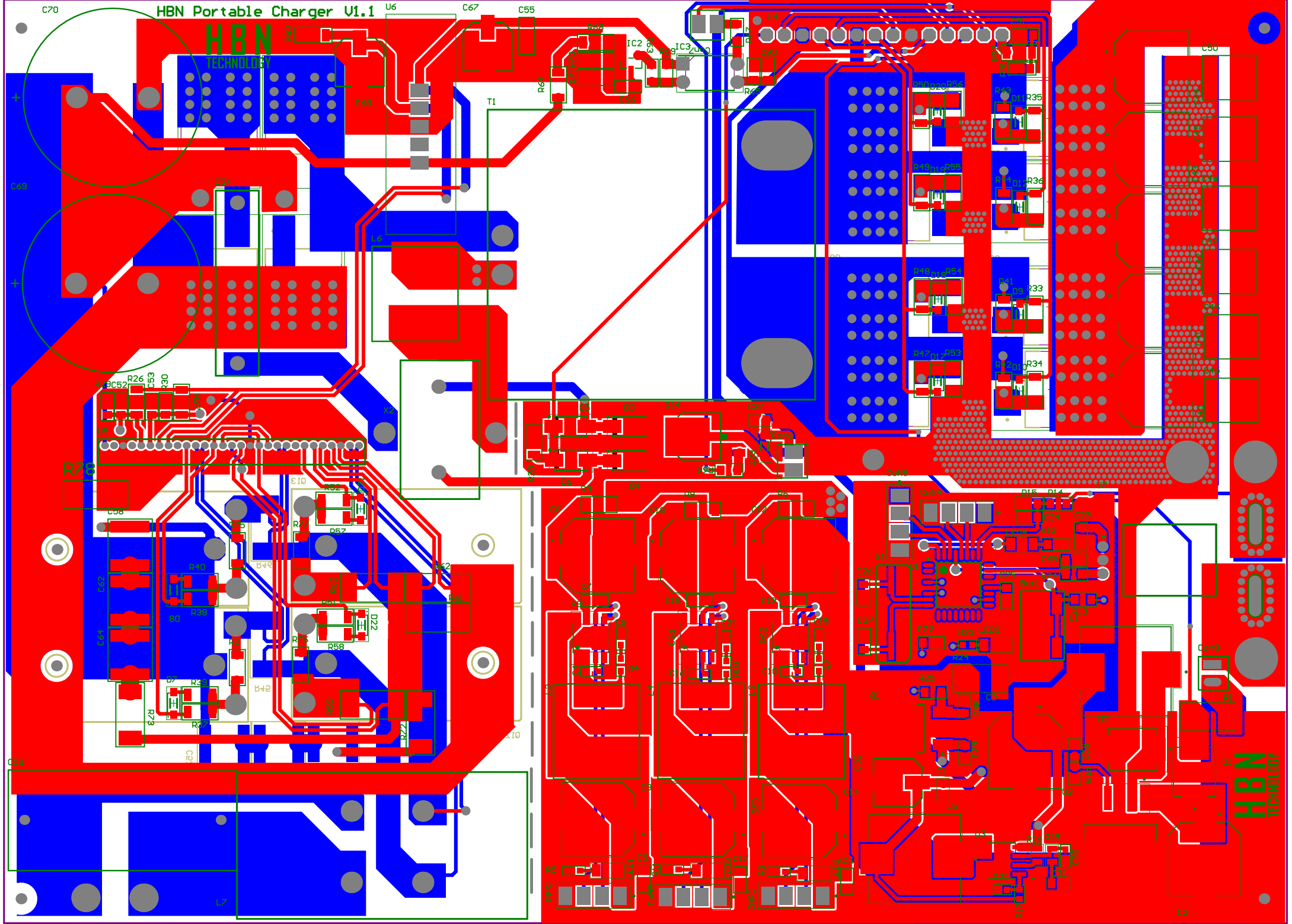
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Date:	10/20/2022	Sheet of
File:	C:\Users\...\USB Charger.SchDoc	Drawn By:

HBN Portable Charger V1.1

HBN  
TECHNOLOGY



Comment	Description	Designator	Footprint	Libref	Quantity
BUT		But1	ButTON	BUT	1
22u#		C1, C29, C37, C38	C-0805	C-0805	4
330UF	CAP ALUM 330UF 20% 16V SMD	C2, C3	CAP_EEETC1C331V	CAP 330UF SMD	2
C-0603		C4, C9, C10, C15, C16, C21	C-0603W	C-0603	6
C-0805		C5, C7, C11, C13, C17, C19, C22, C23, C24, C25, C26, C27, C51, C52, C53, C60, C65, C66	C-0805W	C-0805	18
400V 1000u#		C6, C8, C12, C14, C18, C20, C40, C41, C42, C43, C44	CAP_EEETC1C331V	Aluminum Electrolytic Capacitors	11
51u#		C30	C-0603W	C-0603	1
10u#		C11	C-0805	C-0805	1
10u#		C32	CapSMDiC	100 uF Electr Cap	1
10u#	2220	C45, C46, C47, C48, C49, C50, C57, C58, C61, C62, C63, C64	C-2220R	Cap2220	12
uF		C54	680NF bulk	680	1
C-1206		C55, C56	C-1206W	C-1206	2
22uF 500V		C59	CAP_POL_22UF 500VDC - duplicate	CAP_POL_22UF 500VDC	1
uF		C67, C68	CapSMDiC	CAPSMDiC	2
220uF		C69, C70	Koshin	CAP_EL_220uF 500V	2
2pinConnector		Con6, Con7	2pinCon	2pinConnector	2
Connector2_1		Con8	Conn	Connector2_1	1
4pinCon		CoN1, CoN2, CoN3, CoN4, CoN5	4pinCon	4pinCon	5
S954	Diode Schottky 40V 5A Surface Mount DO-214AA (SMB)	D1, D2	DIOM7959X265N	S954	2
do214	DIODE FAST SWITCHING Single 150mA 75V SMT SOD323	D3, D4, D5, D6	DO-214AC	do214	4
1n4148	Diode Small Signal Switching 100V 0.15A 2-Pin SOD-123 T/R	D7, D8, D9, D10, D11, D12, D17, D18, D19, D20, D21, D22, D23	SOD123	1N4148W-E3-18	13
sch	DIODE FAST SWITCHING Single 150mA 75V SMT SOD323	D13, D14, D15, D16	DPAK_TQ263 - sch	sch	4
TL431ACDBUR	Integrated Circuit	IC2	SOT99P237X112-3N	TL431ACDBUR	1
EL817(C)	Integrated Circuit	IC3	DIP762W60P254L458 H88D24N	EL817(C)	1
220uH	Inductor Power Shielded Wirewound 220uH 20% 100KHz Renthle 1.1A 0.325Ohm DCR 5049 Automotive T/R	L1, L5	IND_MDH12577C-101MA-P3	220uH Inductor SMD	2
Inductor_SMP06050		L2, L3, L4, L6	Inductor	Inductor_SMP06050	4
Choke		L7	choke	choke	1
L1ST-C150KGKT	LED	LED1, LED2, LED3, LED4, LED5	LED1206	L1ST-C150KGKT	5
IP6505	Power Supply	PS1, PS2, PS3	IP6505	IP6505	3
10262_2		S1	TO-262	10262_2	1
TO-263		S2, C3, C4, C5, C8, C9, C10, C11	DPAK_TQ263	TO-263_1	8
3ic Mosfet	3ic Mosfet To247	O6, O7, Q12, Q13	247	3ic Mosfet To247	4
10252		Q14	D-PAK_TO252AA	10252	1
10 1w		R1	R-2512	R-2512	1
R-1206		R2, R3, R6, R9, R26, R27, R28, R32, R33, R34, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58, R64, R68, R70, R71, R75, R76, R77	R-1206W	R-1206	39
R-0603		R4, R5, R7, R8, R10, R11	R-0603W	R-0603	6
R-0805		R12, R13, R14, R15, R25, R29, R30, R31, R63, R65, R66, R67, R69, R74	R-0805W	R-0805	14
100KQ		R16	R-0805	R-0805	1
6.8KQ		R17	R-0603R	R-0603	1
10KQ		R18	R-0805	R-0805	1
RES SMD 1K OHM 1% 1/8W 0805	1KOhms ±1% 0.125W, 1/8W Chip Resistor 0805 (2012 Metric) Moisture Resistant Thick Film	R19	R-0805	1K 0805	1
11KQ	THICK FILM RESISTOR, 11KOHM, 125mW, 5%	R20	R-0805	RES 11KQ SMD	1
1.3KQ		R21	R-0603R	R-0603	1
510Q		R23	R-0603R	R-0603	1
0Q	10 1w	R24	R-2512	R-2512	1
10 1w		R45, R46, R59, R60, R61, R62, R72, R73, R78	R-2512W	R-2512	9
eq4020		T1	eq4020	eq4020	1
ATMEGA328P-AU	Microchip Technology ATMEGA328P-AU, 8bit AVR Microcontroller, 28KHz, 32KB Flash, 32-Pin TQFP	U1	TQFP80P900X900X120 32N	ATMEGA328P-AU	1
LM25765-12/NOPB	SAMPLE SWITCHER&reg 40V, 3A Low Component Count Step-Down Regulator 5-DIP9K/TO-263 -40 to 125	U2	VREG_TPS79625KTR	LM25765-12/NOPB	1
SR2803	330KHz, 3A SYNCHRONOUS BUCK CONTROLLER	U3	SOP127P600X175-8N	SR2803	1
EG8025		U4	EGT003	EGT003	1
EG8025		U5	EG8025	eg8025	1
EG1185		U6	EG1185	eg1185	1
AC3758ECB-200B-PFF-T	Undefined or Miscellaneous	U7	AC37585CA-050B-PFF-T_2	AC3758ECB-200B-PFF-T	1
Crystal	AS495D-16M-FC160F3 TR	X1	crystal	Crystal	1
ct		X2	ct	ct	1