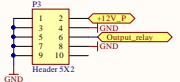
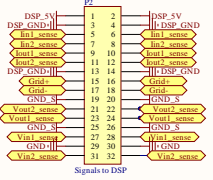
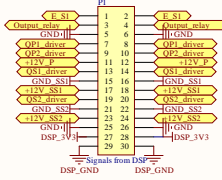
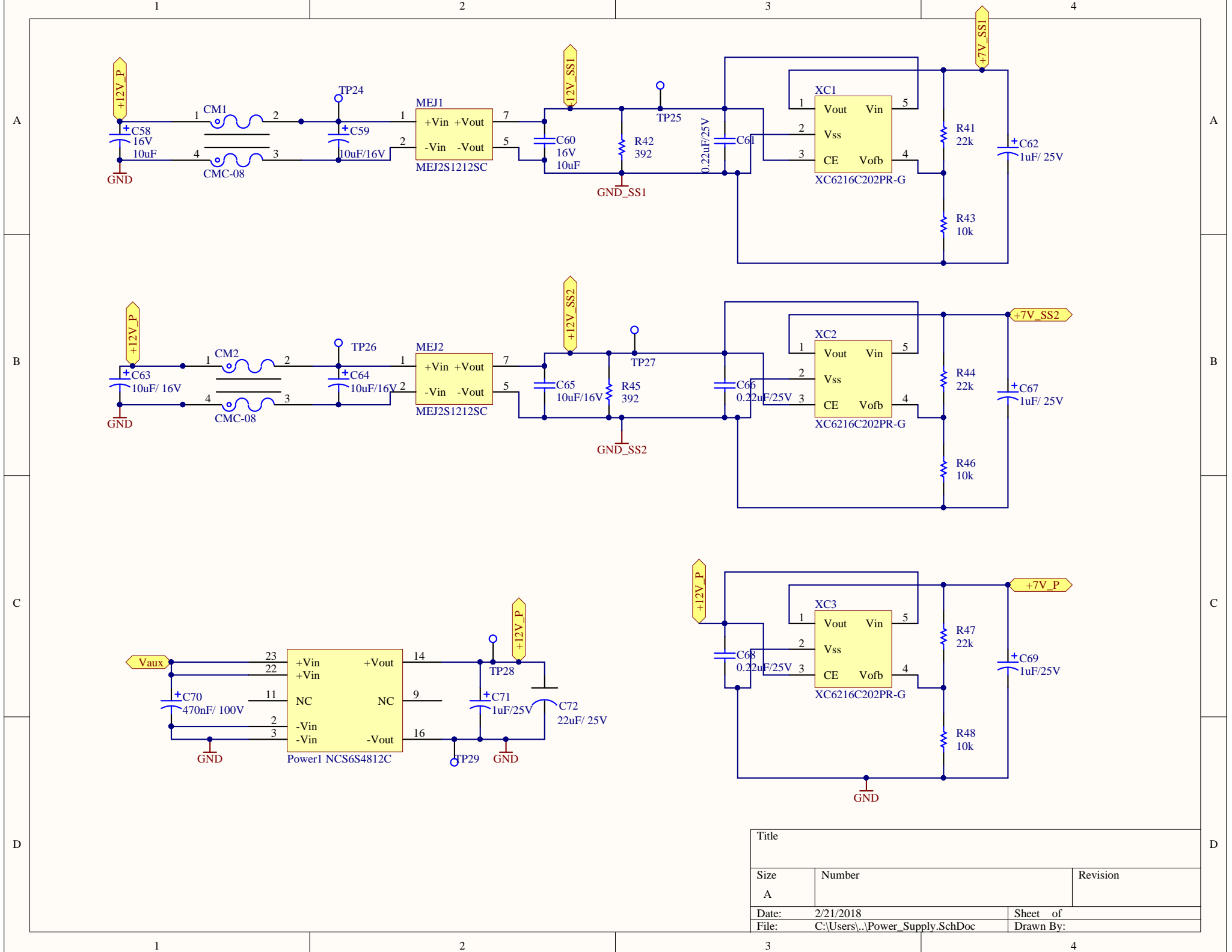


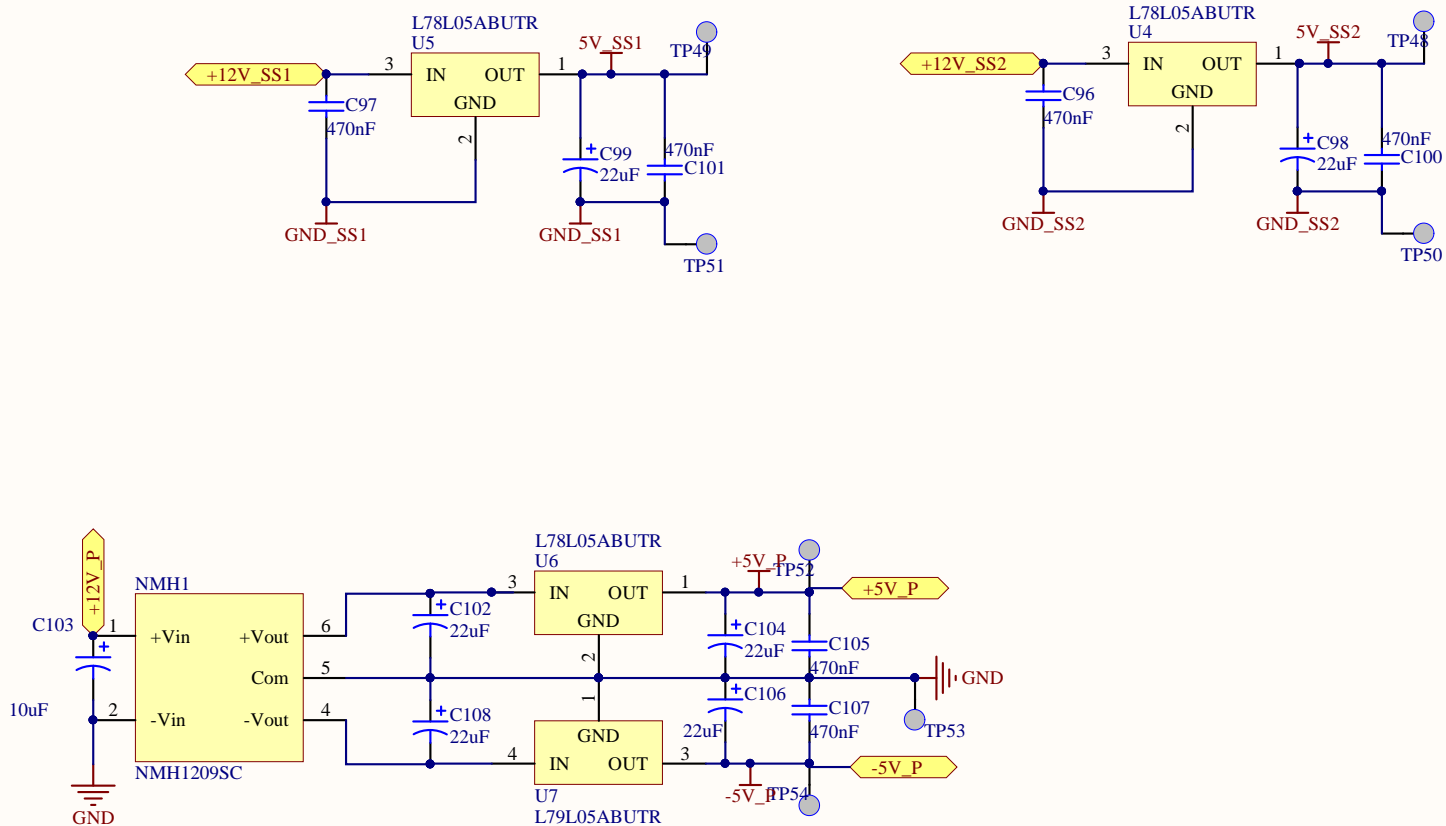
Fault operation supply and signal also included in this header



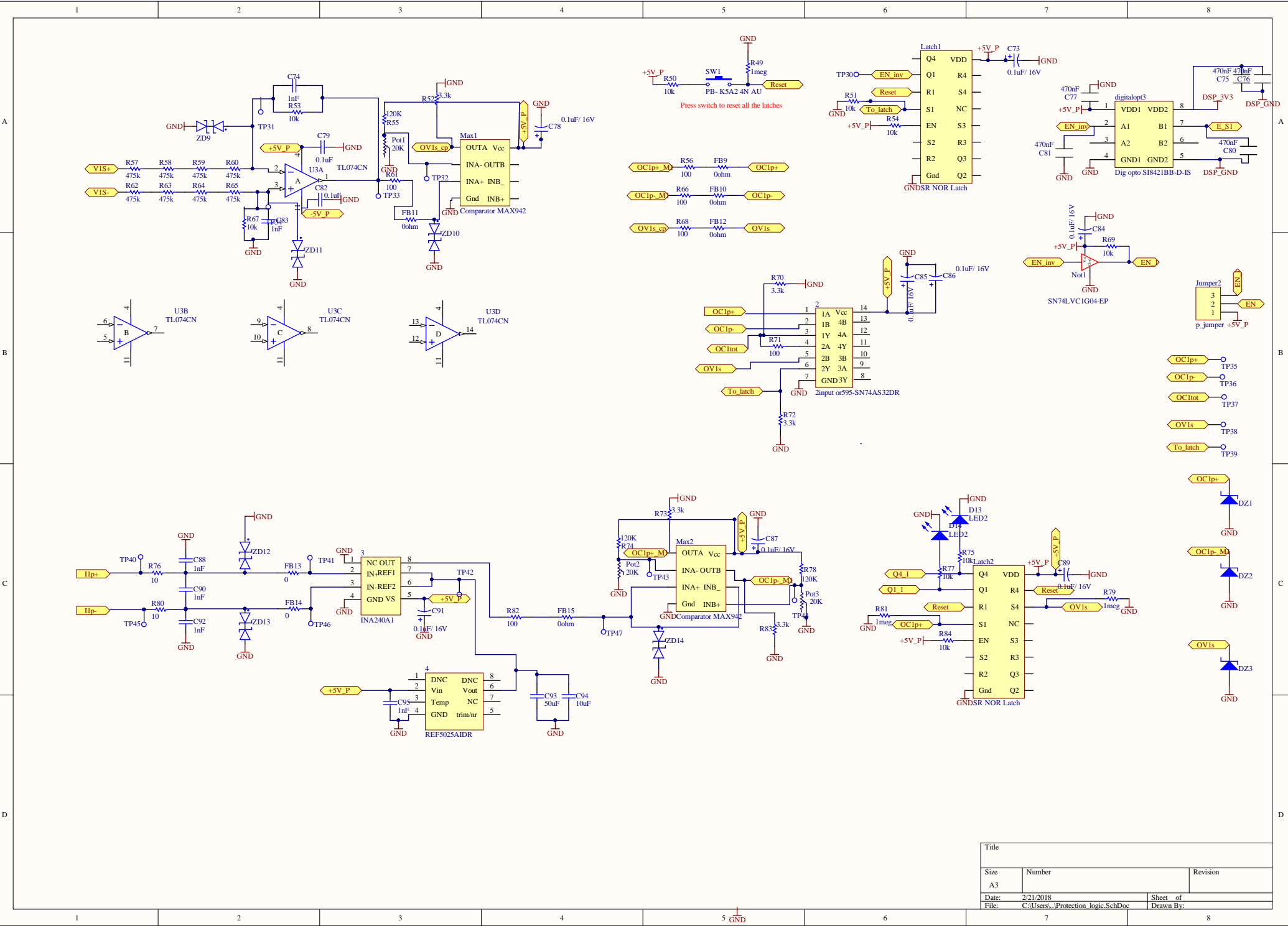
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A2		
Date:	2018/01/10	Sheet 1 of 1
File:	C:\Users\j.papier\Board\SchDoc	1 Drawn By:



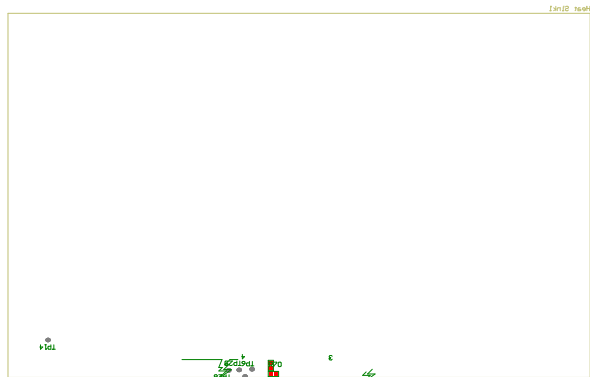
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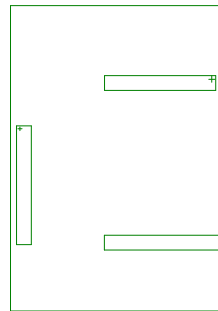


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File:	C:\Users\...Protection_logic.SchDoc	Drawn By:



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Item #	Item Name Error:Manufac	#Column Name Error:Manufacturer No	Quantity	#Column Name Error:Note	Designator	Description	Footprint	Diode	Comment	LibRef
1			4		D1, D2, D3, D4	VS-4ES402HM3	TO-277A	Diode		Diode
2			2		D13, D14	Typical RED, GREEN, YELLOW, AMBER GaAs LED	3.2x1.6x1.1	LED2		LED2
3			1		SW1	Switch	Push Button _New	PB- K5A2 4N 4U		SW-PB
4			4		R15, R16, R18, R19	snubber_res_film	Res_Snub	res_snubber		res_snubber
5			1		Nxt1	SN74LVC1Q04-EP	Inverter	SN74LVC1Q04-EP		Inverter
6			75		FB9, FB10, FB11, FB12, FB13, FB14, FB15, R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R17, R20, R41, R42, R43, R44, R45, R46, R47, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58, R59, R60, R61, R62, R63, R64, R65, R66, R67, R68, R69, R70, R71, R72, R73, R74, R75, R76, R77, R78, R79, R80, R81, R82, R83, R84, Rds1, Rds2, Rds3, Rds4, Rds5, Rds6, Rds7, Rds8	smd_res	res_smd		res_smd	
7			2		R25, R30	Resistor	J1-0603	20		Res3
8			26		FB1, FB2, FB3, FB4, FB5, FB6, FB7, FB8, R21, R22, R23, R24, R26, R27, R28, R29, R31, R32, R33, R34, R35, R36, R37, R38, R39, R40	Resistor	J1-0603	Res3		Res3
9			3		U4, U5, U6	Positive Voltage Regulator	Reg SOT-89 +45	L78L05ABUTR		L78L05ABZ
10			1		C58	Polarized Capacitor (Surface Mount)	1812	16V	Cap Pol3	Cap Pol3
11			11		C20, C21, C22, C23, C30, C31, C32, C33, C59, C63, C64	Polarized Capacitor (Surface Mount)	1812	Cap Pol3		Cap Pol3
12			13		C62, C67, C69, C70, C71, C73, C78, C84, C85, C86, C87, C89, C91	Polarized Capacitor (Surface Mount)	C0805	Cap Pol3		Cap Pol3
13			1		C103	Polarized Capacitor (Radial)	CAP-10u-16V	electrolytic		Cap Pol1
14			2		C102, C108	Polarized Capacitor (Radial)	Cap tantal 22u-25V	Tantalum		Cap Pol1
15			4		C38, C39, C104, C106	Polarized Capacitor (Radial)	Cap Tantal 3216	Tantalum T520A226M006ATE090		Cap Pol1
16			8		D5, D6, D7, D8, D9, D10, D11, D12	PMEG2010EPK	PMEG2010EPK	PMEG2010EPK		PMEG2010EPK
17			1		U7	Negative Voltage Regulator	Reg SOT-89	L78L05ABUTR		uA78M05CKTPR
18			3		DZ1, DZ2, DZ3	MMSZ5221BS	MMSZ5221BS	MMSZ5221BS		MMSZ5221BS
19			2		Max1, Max2	MAX942ESA+	SOIC 8, no EP	Comparator MAX942		Max942
20			1		U3	Low-Noise JFET-Input Operational Amplifier	DIP14	TL074CN		TL074J
21			4		C1, C2, C8, C9	LLS2A332MELC	Cap, 3300uF, 35mm height	3300uF		3300uF
22			1		P2	Header, 16-Pin, Dual row	HDR2X16	Signals to DSP		Header 16X2
23			1		P1	Header, 15-Pin, Dual row	HDR2X15	Signals from DSP		Header 15X2
24			1		P3	Header, 5-Pin, Dual row	HDR2X5	Header 5X2		Header 5X2
25			1		ZD1, ZD2, ZD3, ZD4, ZD5, ZD6, ZD7, ZD8, ZD9, ZD10, ZD11, ZD12, ZD13, ZD14	GAIN 20	INA240	INA240A1		ina240
26			14		CM1, CM2	DZ23C8V2-7-F	Zener Diode	8.2 v		Zener_diode
27			2		Latch1, Latch2	Common mode choke	CMC-08	CMC-08		CMC-08
28			2		C60, C74, C79, C82, C83, C88, C90, C92, C93, C94, C95	CD4043BDR	SR Latch	SR NOR Latch		Cap Semi
29			11		C61, C65, C66, C68	Capacitor (Semiconductor SIM Model)	C1206	16V		Cap Semi
30			4		C96, C97, C100, C101, C105, C107	Capacitor	Capacitor 0805	Cap		Cap Semi
31			6		Pot1, Pot2, Pot3	3296W-1-253LF	Pot	20K		TRIM POT
32			3		C16, C17, C18, C19, C26, C27, C28, C29, C36, C37, C38, C39, C40, C41, C43, C44, C45, C46, C47, C49, C50, C51, C52, C54, C55, C57, C75, C76, C77, C80, C81		Cap_SMD	100nF		Cap_SMD
33			31		RSP3		Res-RS	15 ohm		Res_Rd
34			1		Cd1, Cd2, Cd3		Cd	15uF		Cd
35			3		C42, C53, C56, C72		Cap_tantalum	22uF		Cap_tantalum
36			4		C48		Cap_tantalum	22uF/25V		Cap_tantalum
37			1		Z		2input	2input or595-SN74AS32DR		2 input OR
38			1		Cd2		Cap-Cs	560p		Cap-CS
39			1		Cd3		Cap-Cs	960pF		Cap-CS
40			1		Cd1		Cap-Cs	990pF		Cap-CS
41			1		Current_Sense1, Current_Sense2, Current_Sense3, Current_Sense4		SOIC-8	ACS712-05		Current Sensor 5A
42			4		Logic supply1		Auxiliary connector	Auxiliary connector		Auxiliary connector
43			1		C64		Cap-Cs	Cap cdv16R101033		Cap-CS
44			1		Connb1, Connb2		Cap_Conub	Cap DIPM10S22K-F		Cap_Conub
45			2		CP1, CP2, CP4		Cap_cp	Cap_CP		Cap_CP
46			3		CP3		Cap_cp - small	Cap_CP		Cap_CP
47			1		CP4		Cd			Cd
48			1		Conn1, Conn2, Conn4, Conn5, Conn6, Conn8		PCBComponent_1	Component_1		Component_1
49			6		Load1		Connector, 60A	Connector 60A		Connector 60A
50			1		U1		Control Board	Control Board		Control Board
51			1		U1		P-Terminal 3	DC Input		P-Terminal 3
52			1		digitalopt1, digitalopt2, digitalopt3		SO8 TS272	Dig opto SI8421BB-D-1S		Digital Isolator
53			3		Grid1		Auxiliary connector	Grid Input for sense		Auxiliary connector
54			1		GaN1, GaN2, GaN3, GaN4, GaN5, GaN6, GaN7, GaN8		GS66508B	GS66508B		GS66508B
55			8		Heat Sink1		Heat Sink	Heat sink		Heat sink
56			1		L1		Inductor_small	Inductor		Inductor
57			1		L2		Inductor_small_mirror	Inductor		Inductor
58			2		L_snb1, L_snb2		Inductor surface mount	Inductor smd		Inductor smd
59			2		Ls1, Ls2		Inductor output	Inductor_output		Inductor_output
60			2		Gate_Driver1, Gate_Driver2, Gate_Driver3, Gate_Driver4		Gate driver_low side	IXD609SI		Gate driver low side
61			4		U2		P-Terminal 2	Jumper Vin		P-Terminal 2
62			1		MEJ1, MEJ2		MEJ2	MEJ2S12125C		Power supply2
63			2		Power1		Power_main	NC56S4812C		Power_main
64			1		NM1		NM1-2095C	NM1-2095C		NM1-2095C
65			1		C3, C4, C5, C6, C7, C10, C11, C12, C13, C14, C15, C24, C25, C34, C35		Output cap	Output_cap		Output_cap
66			15		Conn3, Conn7		PCB_CONNECTOR	pcb CONNECTOR		pcb CONNECTOR
67			2		Jumper1, Jumper2		Header13	p_Jumper		p_Jumper
68			2		4		REF3025AIDR	REF3025AIDR		REF3025AIDR
69			1		RSP1, RSP2, RSP4		Res-RS	Res_Rd		Res_Rd
70			3		Resense1		Sense resistor	Sense Resistor		Sense Resistor
71			1		TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP13, TP14, TP15, TP16, TP17, TP18, TP19, TP20, TP21, TP22, TP23, TP24, TP25, TP26, TP27, TP28, TP29, TP30, TP31, TP32, TP33, TP34, TP35, TP36, TP37, TP38, TP39, TP40, TP41, TP42, TP43, TP44, TP45, TP46, TP47, TP48, TP49, TP50, TP51, TP52, TP53, TP54		Test Point	Test Point		Test Point
72			54		T1, T2		Transformer	Transformer		Transformer
73			2		XC1, XC2, XC3		SOT-89-5	XC6216C202PR-G		Transformer
74			3							power supply