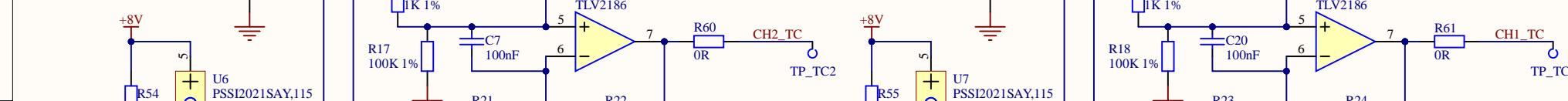


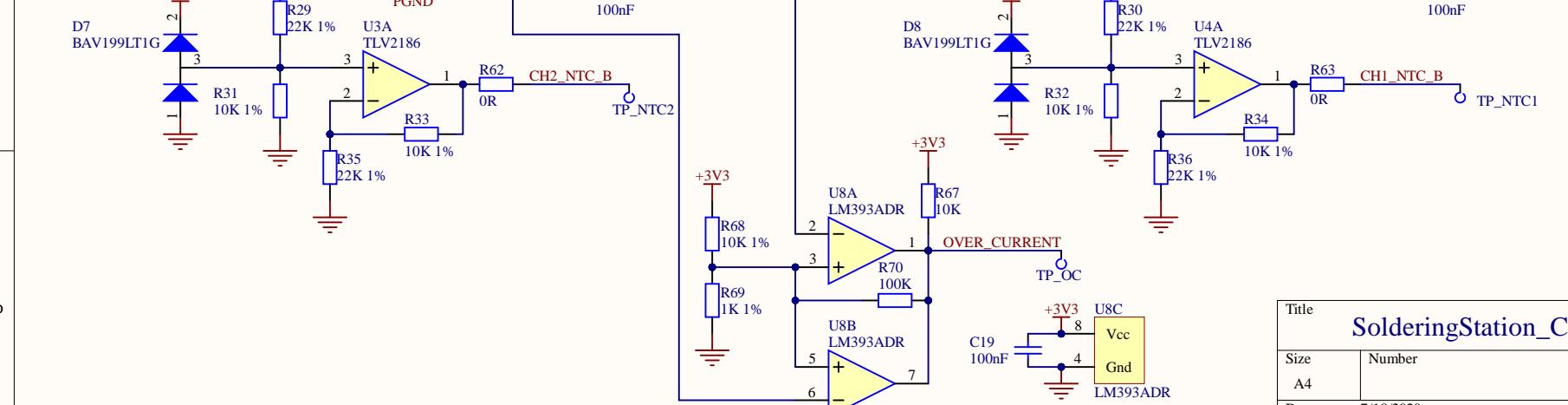
A



B



C



Title: SolderingStation_Control.SchDoc

Size	Number	Revision
A4		3.0
Date: 7/18/2020	Sheet of	
File: C:\Users...\SolderingStation_Control.SchDoc	Drawn By:	

A

B

C

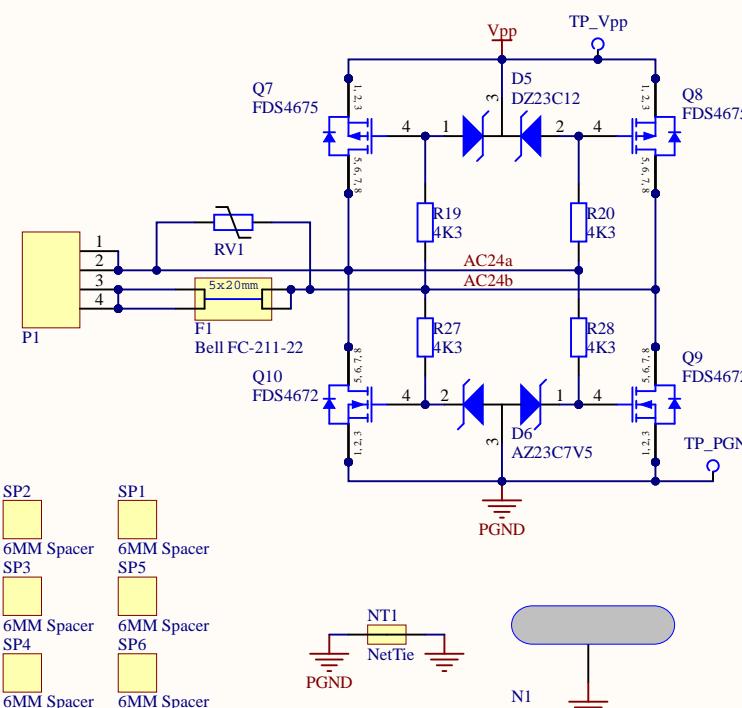
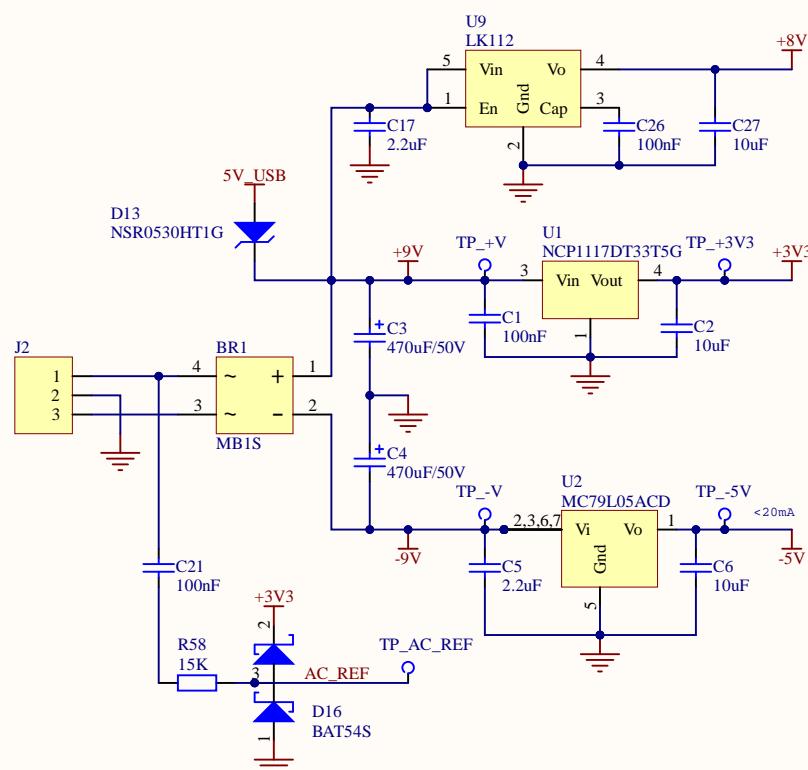
D

A

B

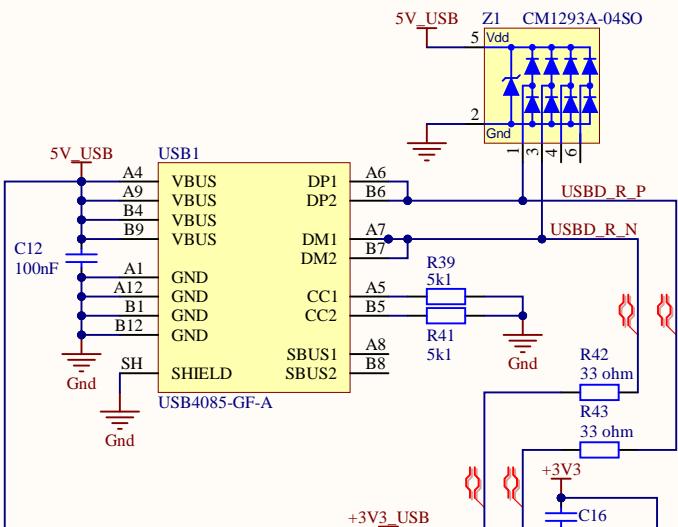
C

D

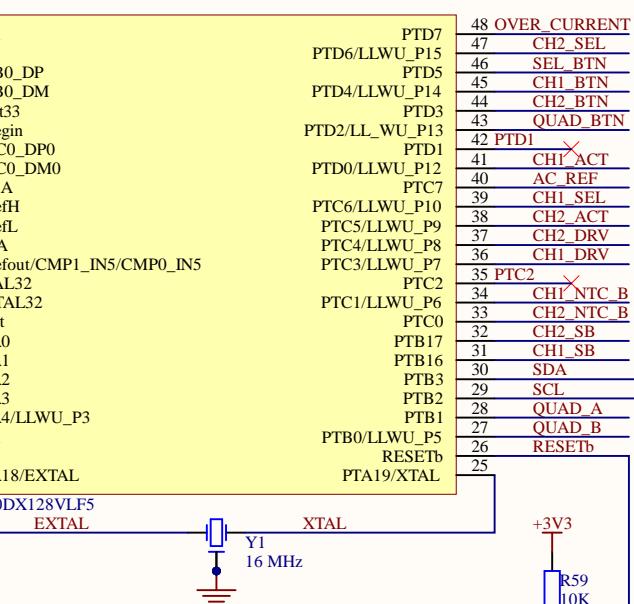
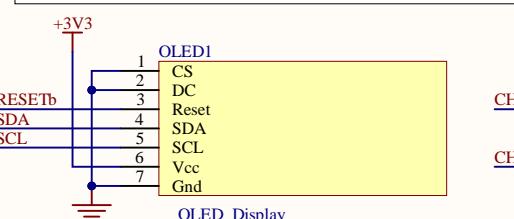


Title
SolderingStation_Power.SchDoc

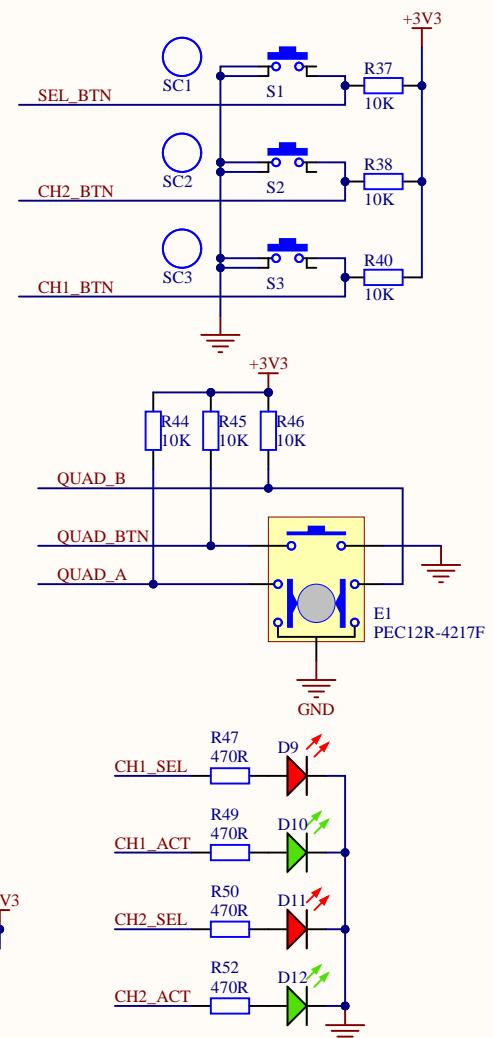
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A4		3.0
Date:	7/18/2020	Sheet of
File:	C:\Users...\SolderingStation_Power.SchDoc	Drawn By:

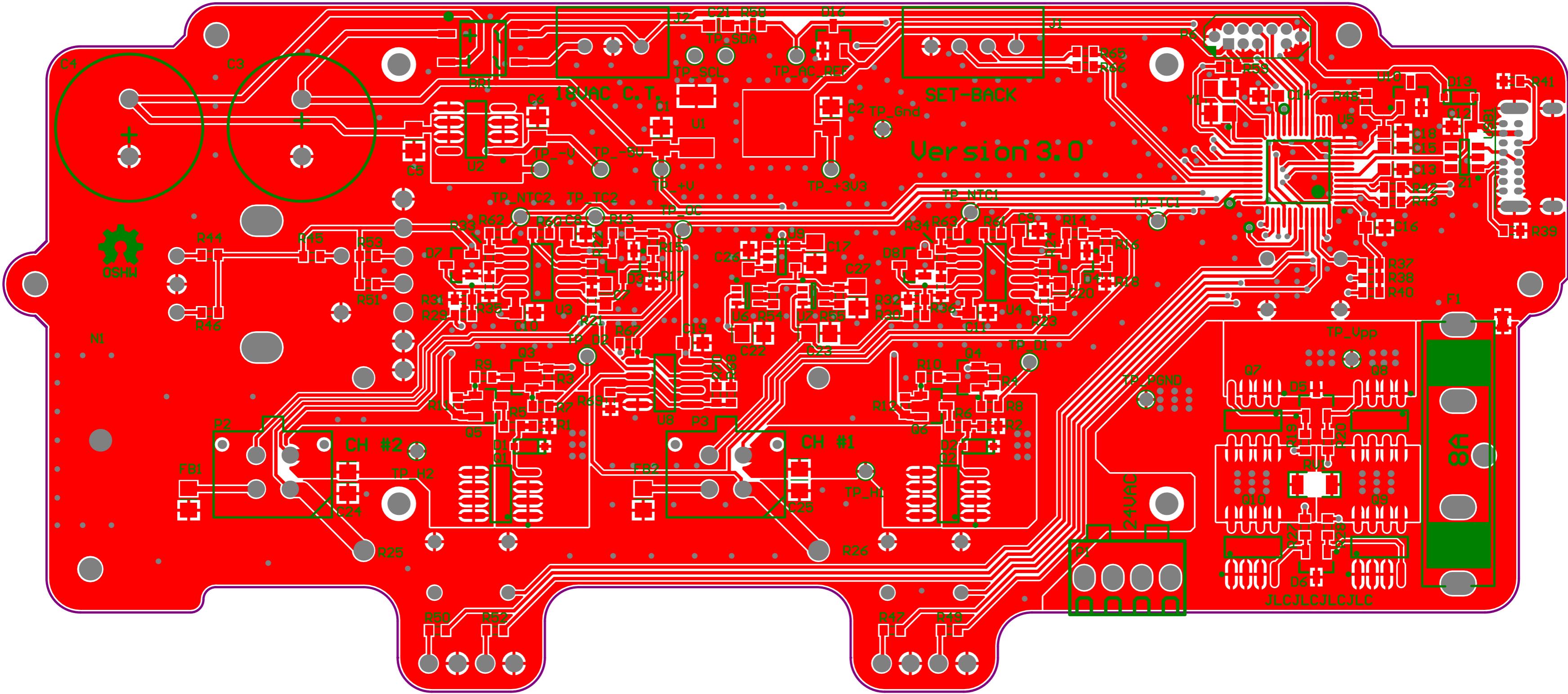


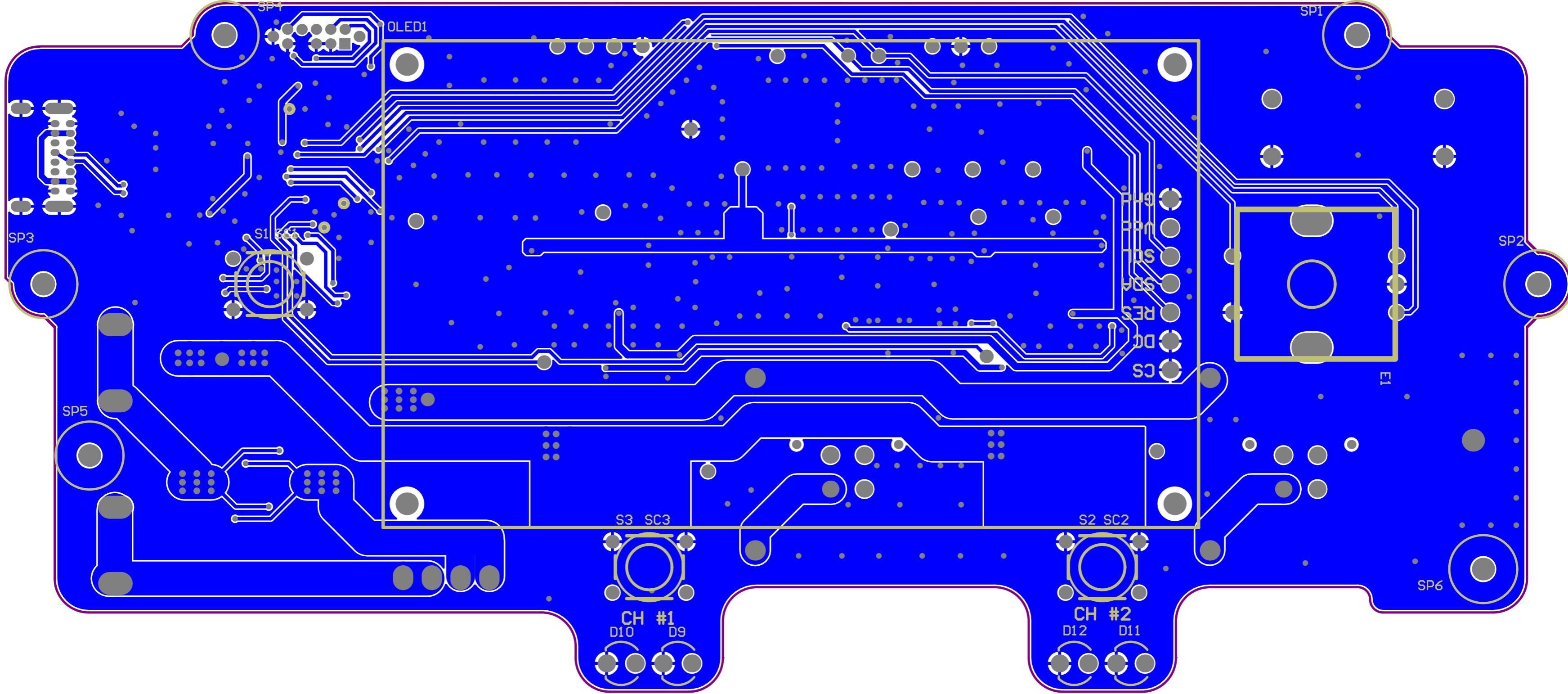
V1
- Initial release
V2
- Added Setback
- Changed current source IC etc.
- Added voltage reference for ADC
V3
- Board Dimensions altered



Title SolderingStation_Processor.SchDoc		
Size A4	Number	Revision 3.0
Date: 7/18/2020		Sheet of
File: C:\Users\...\SolderingStation_Processor.SchDoc		Drawn By:







Bill of Materials							Formatted BOM for Project [SolderingStation.PrjPcb] (No PCB Document Selected)	
Source Data From:		SolderingStation.PrjPcb						
Project:		SolderingStation.PrjPcb						
Variant:		None						
Creation Date:		18/07/2020 9:57 PM						
Print Date:		18-Jul-20 9:58:01 PM						
Footprint	Comment	Farnell PN	Digikey	LCSC	Designator	Description	Quantity	
MB1S	MB1S			C232621	BR1	Bridge Rectifier Diode, Single Phase, 100 V, 800 mA, SOIC, 1.1 V, 4A	1	
CCNP2012-0805	100nF			C49678	C1	Capacitor non-polar SMT 0805	1	
CCNP2012-0805	10uF			C15850	C2, C6, C27	Capacitor	3	
RB5/13x21mm	470uF/50V	9451439			C3, C4		2	
CCNP2012-0805	2.2uF			C49217	C5, C17	Capacitor non-polar SMT 0805	2	
CCNP1608-0603	100nF			C14663	C7, C8, C9, C10, C11, C12, C14,	Capacitor non-polar SMT 0603	14	
CCNP1608-0603	2.2uF			C23630	C13	Capacitor	1	
CC2012-0805	1uF			C28323	C22, C23, C24, C25	Capacitor SMT 0805	4	
SOD-323	BZT52C12S-7-F			C124208	D1, D2	Surface Mount Zener Diode, 12-13 V, -65 to 150 degC, 2-Pin SMD (DO-214AC)	2	
SOT23_N	BAV199LT1G	1431115	BAV199LT1GOSCT-ND	C145516	D3, D4, D7, D8	Dual Series low-leakage switching diodes, 3-Pin SOT-23	4	
SOT23_N	DZ23C12			C151460	D5	Dual silicon planar Zener diodes	1	
SOT23_N	AZ23C7V5			C151460	D6	Dual silicon planar Zener diodes	1	
LED3MM-RED - 10mm Proud	LED				D9, D11	3mm Red LED	2	
LED3MM-GREEN - 10mm Proud	LED				D10, D12	3mm Green LED	2	
SOD-323	NSR0530HT1G	2508350			D13	Schottky Rectifier, 30 V, 500 mA, Single, SOD-323, 2 Pins, 620 mW	1	
SOT23_N	BAT54S	2675347		C47546	D16	Dual Series Schottky Diodes, SOT23	1	
RotaryEncoder - PEC12R	PEC12R-4217F		PEC12R-4220F-N0024-		E1	Rotary Encoder Bourns	1	
FUSE_CLIP_5x20	Bell FC-211-22		507-1415-ND		F1	5x20mm fuse clip PCB Mount	1	
FB2012-0805	Ferrite Bead	1669733		C17477	FB1, FB2	Ferrite Bead SMT 0805, TDK MPZ2012S102AT, 0.15OHM, 1.5A	2	
jst-b40-xh-a	JST XH Connector, 4-Pin	1516278	455-2249-ND		J1	JST XH Connector, 4-Pin	1	
OLED_Display_128x64_2.4inch	OLED_Display				J2	JST XH Connector, 3-Pin	1	
TYCO-282834-4	Terminal4_BUCHANAN	2396253			OLED1	OLED Display 128x64 pixels,	1	
MOLEX-43045-0412	MOLEX-43045-0412				P1	2.54mm Terminal Block	1	
SO-8_N	FDS4675				P2, P3	Wire-To-Board Connector, With Polarizing Peg, 3 mm, 4 Contacts, F	2	
SOT23_N	MMBT3906LT1G			C53444	Q1, Q2, Q7, Q8	P-Channel Power MOSFET, 11 A, 40 V, RDS(ON) = 0.013 Ω @ VGS = 4V	4	
SO-8_N	MMBT3904LT1G			C53444	Q3, Q4	General Purpose Transistor, PNP Silicon, 3-Pin SOT-23, Pb-Free, TA = 150°C	2	
CR1608-0603_N	75K			C53444	Q9, Q10	N-Channel Power MOSFET, 11 A, 40 V, RDS(ON) = 13 mΩ @ VGS = 4V	2	
CR1608-0603_N	15K			C53444	R1, R2	Resistor SMT 0603	2	
CR1608-0603_N	7k5			C23242	R3, R4, R58	Resistor SMT 0603	3	
CR1608-0603_N	39K			C22809	R3, R4, R58	Resistor SMT 0603	2	
CR1608-0603_N	43K			C23234	R5, R6	Resistor SMT 0603	2	
CR1608-0603_N	30K			C23153	R7, R8	Resistor SMT 0603	2	
CR1608-0603_N	100K			C23172	R9, R10	Resistor SMT 0603	2	
CR1608-0603_N	1K 1%			C22984	R11, R12	Resistor SMT 0603	2	
CR1608-0603_N	100K 1%			C25803	R13, R14, R70	Resistor SMT 0603	3	
CR1608-0603_N	4K3			C21190	R15, R16, R21, R23, R69	Resistor SMT 0603	5	
OAR3-R050FI	OAR3-R050FI			C25803	R17, R18, R22, R24	Resistor SMT 0603	4	
CR1608-0603_N	22K 1%			C23159	R19, R20, R27, R28	Resistor SMT 0603	4	
CR1608-0603_N	10K 1%				R25, R26	Current Sense Resistor, 0.05 ohm, OAR Series, 3 W, Metal Strip, ROHS Compliant	2	
CR1608-0603_N	10K			C31850	R29, R30, R35, R36	Resistor SMT 0603	4	
CR1608-0603_N	5k1			C25804	R31, R32, R33, R34, R68	Resistor SMT 0603	5	
CR1608-0603_N	33R			C25804	R37, R38, R40, R44, R45, R46	Resistor SMT 0603	8	
CR1608-0603_N	470R			C23186	R39, R41	Resistor SMT 0603	2	
CR1608-0603_N	1K			C23140	R42, R43	Resistor SMT 0603	2	
CR1608-0603_N	4k7			C23179	R47, R49, R50, R52	Resistor SMT 0603	4	
CR1608-0603_N	1K2			C21190	R48, R65, R66	Resistor SMT 0603	3	
CR1608-0603_N	0R			C23162	R51, R53	Resistor SMT 0603	2	
CR1608-0603_N				C22765	R54, R55	Resistor SMT 0603	2	
VR3216-1206	V33MLA1206NAUTO	1816942	F11298CT-ND	C21189	R60, R61, R62, R63	Resistor SMT 0603	4	
SW_MIN_PB-B3F1052	SW_PB-FSM4JAH	196094202			RV1	V33MLA1206NH - TVS Varistor, 26 V, 33 V, MLA Series, 75 V, 1206	1	
SW-CAP-B32-2010	B32-2010	2352313			S1, S2, S3	Switch miniature push-button	3	
Spacer-6mm	6MM Spacer				SC1, SC2, SC3	Switch Cap	3	
TO-252	NCP1117DT33T5G		NCP1117DT33T5GOSCT	C162529	SP1, SP2, SP3, SP4, SP5, SP6	6MM Spacer	6	
SOIC127P600-8N	MC79L05ACD		UA79M05CKVURG3	C154823	U1	IC REG LINEAR +3V 1A TO252-3	1	
SOIC127P600-8N	TLV2166				U2	IC REG LINEAR -5V 100MA SOIC-8	1	
TSQFP50P900X900-48N	MK20DX128VLF5	2133571	MK20DX128VLF50-ND		U3, U4	Dual Precision, Rail-to-Rail Input and Output, 4.5-24V, Zero-Drift Op-Amp	2	
SOT353-5N	PSI2021SIY,115				U5	Kinetics K20: 50MHz Cortex-M4 Performance MCU, 160kB Flash, 16kB RAM, 16kB ROM	1	
SOIC127P600-8N	LM393ADR				U6, U7	Adjustable Current Source, SOT353, Stabilized output current between 0.1mA and 10mA	2	
SOT23-5_L	LK112	3130054	497-7810-1-ND	C30394	U8	IC DUAL DIFF COMPARATOR 8-SOIC	1	
SOT23_N	LM4040BIM3-3.0/NOPB	3124407	LM4040BIM3-X	C155884	U9	LDO Regulator - 8V, 250mA	1	
USB4085-GF-A	USB4085-GF-A	2924867	2073-USBA085-GF-AC-TR	C131939	U10	IC 3.0V VREF SHUNT 0.2% SOT23-3	1	
Crystal_SMD_3.2x2.5	16 MHz				USB1	USB-C, USB 2.0 Receptacle Connector 16 Position Through Hole, Right Angle	1	
SOT457_N	CM1293A-04SO	2533258	CM1293A-04SOOSCT-	C393377	Z1	Crystal SMD 3.2 x 2.5 x 0.7 mm	1	
						Ultra low capacitance quadruple rail-to-rail ESD protection	1	
Approved	Notes						155	

