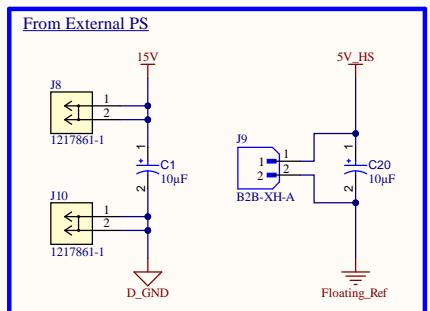
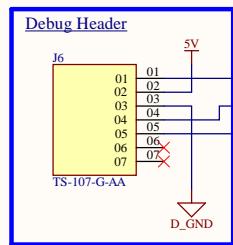
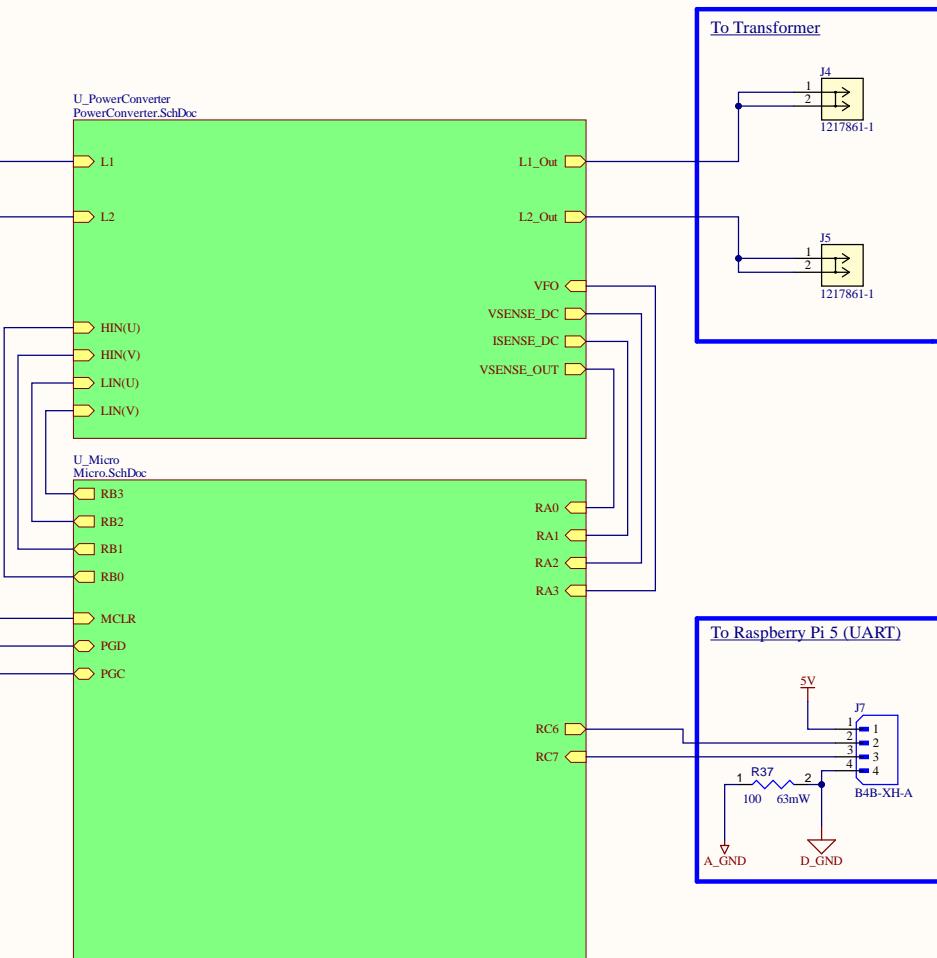
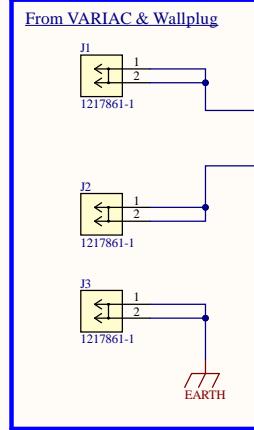


1 2 3 4 5 6

A



ST1 1.25in Ceramic Standoff
ST2 1.25in Ceramic Standoff
ST3 1.25in Ceramic Standoff
ST4 1.25in Ceramic Standoff

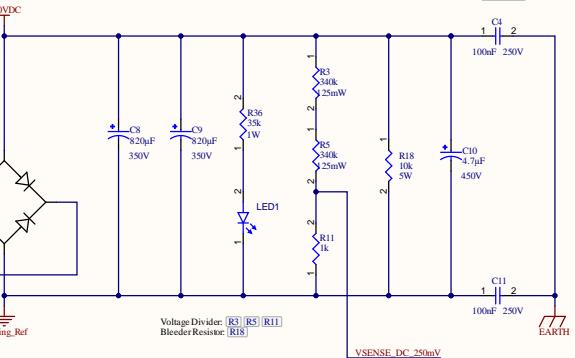


Title: Rectifier & Inverter - Top Sheet
Size: B Date: 11/15/2025 Revision: 1.2

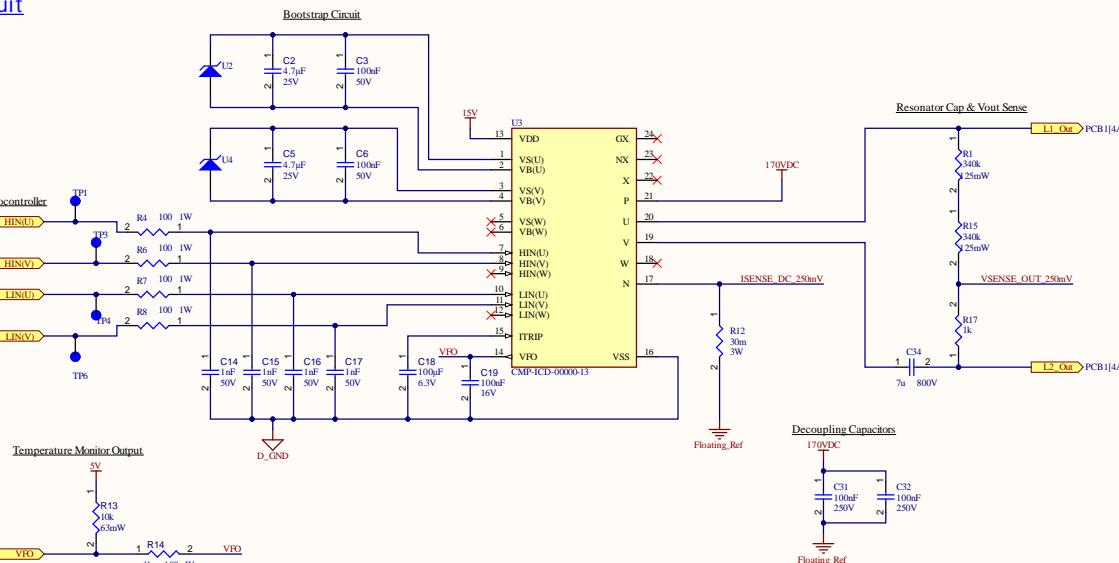
Drawn By: Leon Engle

1 2 3 4 5 6

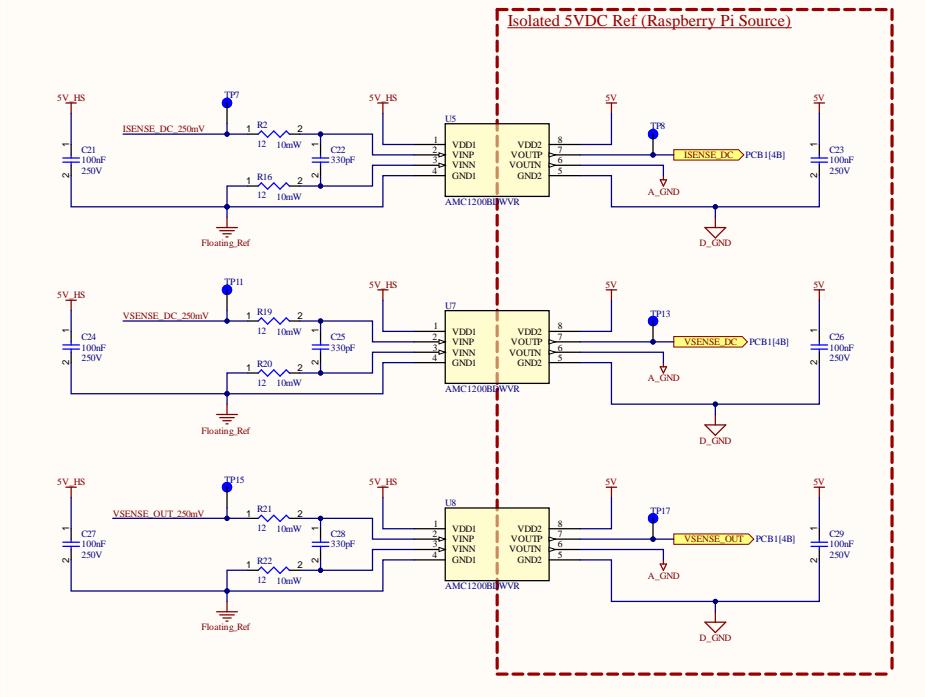
Rectifier & XY Filter



IPM Circuit



V & I Sense Linear Isolators



A

B

C

D

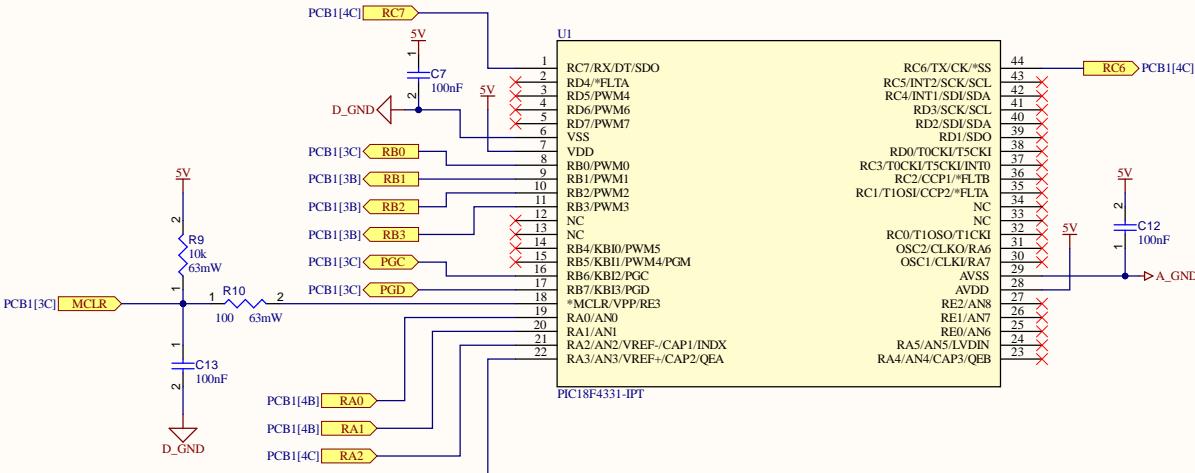
A

B

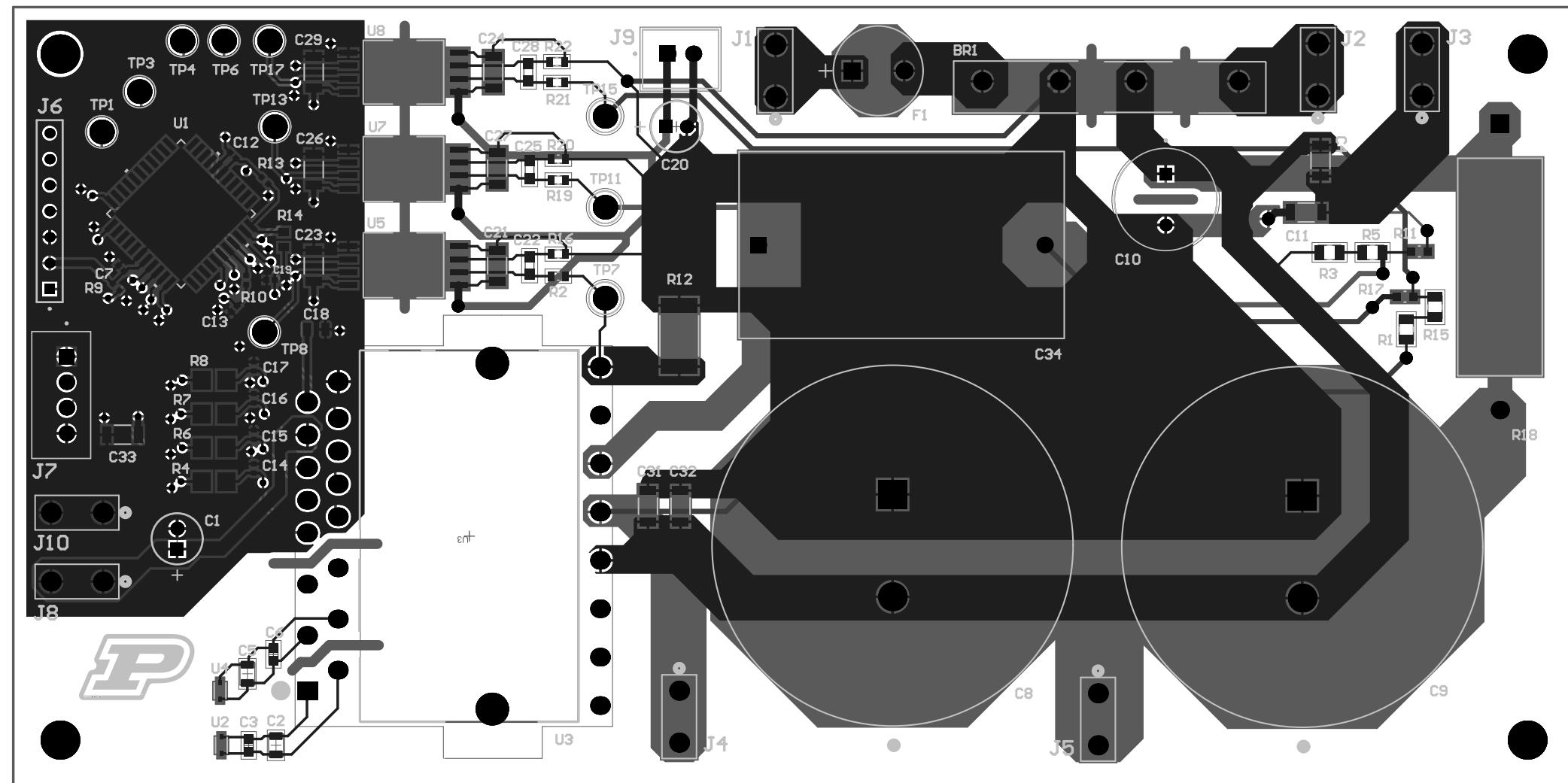
C

D

Microcontroller



 PURDUE UNIVERSITY®		
Title	PCB1 - Microcontroller	
Size	A	Date 11/21/2025
Drawn By	Leon Engle	



Comment	Description	Designator	Footprint	LibRef	Quantity
GB0510-BP	Description BR1	GBU_MCC		OMP-072-000000-2	1
EC11-M100	Aluminum Electrolytic Capacitor, 10uF +/- 20%, 50V, -40 to 85 degC, 2.1in THD, RoHS Bulk	C1, C20	CAPFRS5-200-1100X500X1200	OMP-001-00025-7	2
	Capacitor 4.7uF +/- 40% 25V 0805	C2, C5	CAPD0805(2012)145_L	OMP-001-00080-5	2
	Capacitor 100nF +/- 10% 50V 0803	C3, G3	CAPC100nX90X40NL1_0720	OMP-001-00017-6	2
	Capacitor 100nF +/- 10% 50V 0603 (1602 Metric)				
	0.1 uF ±10% 250V Ceramic Capacitor X7R-206 (3216 Metric) C3110X10KB-6NUE	C4, C11, C21, C23, C24, C26, C27, C29, C31, C32	CAP_C31_SAM	OMP-001-00087-4	10
	Capacitor 0.1uF +/- 5% 16V 0402	C7, C12, C13, C19	CAPC100nX50X25L10_T15	OMP-001-00001-6	4
	CAP ALUM 220uF 20% 360V SNAPTH 65	C8, C9	CHEM-VSN_A15	OMP-001-00089-3	2
	CAP ALUMA 7uF 20% 450V RNDM	C10	CAPPR6500W600L1000_H2000	OMP-001-00088-2	1
	Capacitor 1nF +/-20% 40% 50V, 0402, Thickness 0.33mm	C14, C15, C16, C17	CAPD0402(1005)33_L	OMP-001-00066-4	4
	Capacitor 100uF +/- 20% 6.3V 0805	C18	CAPD0805(2012)145_L	OMP-001-00054-5	1
	0603 330pF 25V A=10 % Tolerance X7R SMT Multilayer Ceramic Capacitor, KGM16A/T1E31KT	C22, C25, C28	CAPC100X90	OMP-001-00086-3	3
	7uF Film Capacitor 800V Polypropylene (PP), Metallized Polyester E32774X8705K000	C34	CAP_B32774X_31p6X1_B27p5-27p5_TDK	OMP-001-00090-2	1
	No Description Available	F1	RUS_LITTLEFUSE_374_LTF	OMP-005-00013-3	1
	250 FASSTON PCB TAB T30R	J1, J2, J3, J5, J8, J10	CONN_1217861-1_T30	OMP-027-00000-5	7
	Conn Unshrouded Header HDR7 POS 2.54mm Solder St Top Entry Thru-Hole Tube	J6	SAMTEC_TS-107-G-AA	OMP-002-00074-2	1
	Connector Header Through Hole 4 position 0.098 (2.50mm)	J7	JST_B4B-XHA	OMP-002-00073-2	1
	B4B-XHA	J9	JST_B4B-XHA	OMP-119-00000-1	1
	Chip LED0402 Green, 0.02A, 3.1 to 3.7V, -40 to 80degC, 2-Pin SMD, RoHS, Tape and Reel	LED1	QTB-QBLP595_V	OMP-007-00041-3	1
	RES SMD 340K OHM 1% 1/8W 0805	R1, R3, R5, R15	RES2012X50N	OMP-009-00187-2	4
	RES Thick Rim 0603 12 Ohm, 0.1W (1/10W) 100ppm CM10led SMD Automotive Punched T/R ER08RF120V	R2, R16, R19, R20, R21, R22	RES_ER08RF120V	OMP-009-00192-2	6
	100 Ohms ±0.1% 1W Chip Resistor 1206 (3216 Metric) Anti-Sulfur, Automotive ABC-2200, Moisture Resistant Thin Rim	R4, R6, R7, R8, R36	RES3216X55N	OMP-009-00184-5	5
	Resistor 10K +/-1% 0402 63mW	R9, R13	RESD0402(1005)_L	OMP-009-00149-6	2
	Res 1k +/-0.1% 0.2W 0603	R10	RESD0402(1005)_L	OMP-009-00167-4	1
	CR2512-F2R300EL	R12	BO_CR2512	OMP-009-00190-4	1
	Chip Resistor, 1 Kohm, +/-1% 0.1W, 65 to 155 degC, 0603 (1608 Metric)	R14	RES108X55X25ML10_T15	OMP-009-00014-5	1
	RES 10KCHM 5% 5W AX41L	R18	55J_CHM	OMP-129-00000-3	1
	100RF 0.063W/1%0402 (1005 Metric) SMD	R27	RESD0402(1005)_L	OMP-009-00065-2	1
	1.25n Ceramic Sandler	S11, S12, S13, S14	New footprint 1	OMP-0030-0004-3	4
	Test Point Multi Purpose TH-MH				
5011	.445Inch(46 Insulated Blk Phosphorbronze/Silver	TP1, TP3, TP4, TP6, TP7, TP8, TP11, TP13, TP15, TP17	TP_5011	OMP-117-00000-1	10
	PIC18F4331-I/P	U1	TQFP44_MQ_MCH	OMP-112-00000-3	1
	No Description Available				
	SZM/MZ18/T1G	U2, U4	SOD_523_09K1P3ONS	OMP-075-00000-3	2
	10pin Module, light/ Mosfet, 600V, 20A	U3	DIP_36x21D-24	OMP-024-00000-1	1
	RoHS Compliant: Yes				
	AMP100BDW-R	U5, U7, U8	DWV8_TEX	OMP-014-00003-2	3