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971100365  
Plastic Spacer M3 I/A / 10mm

MP1

971100365  
Plastic Spacer M3 I/A / 10mm

MP2

971100365  
Plastic Spacer M3 I/A / 10mm

MP3

971100365  
Plastic Spacer M3 I/A / 10mm

MP4

970300365  
Plastic Spacer M3 I/I / 30mm

MP5

970300365  
Plastic Spacer M3 I/I / 30mm

MP6

970300365  
Plastic Spacer M3 I/I / 30mm

MP7

970300365  
Plastic Spacer M3 I/I / 30mm

MP8

PCB Number  
WE-WPC-001-V04-2018

WE-Logo Solder Mask

Hole M3  
Diameter 3.2mm

Hole M3  
Diameter 3.2mm

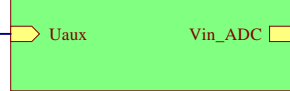
Hole M3  
Diameter 3.2mm

Hole M3  
Diameter 3.2mm

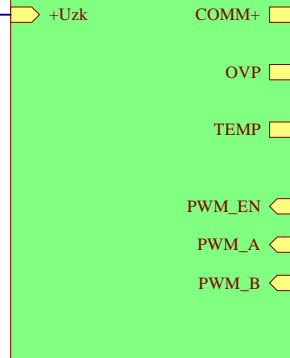
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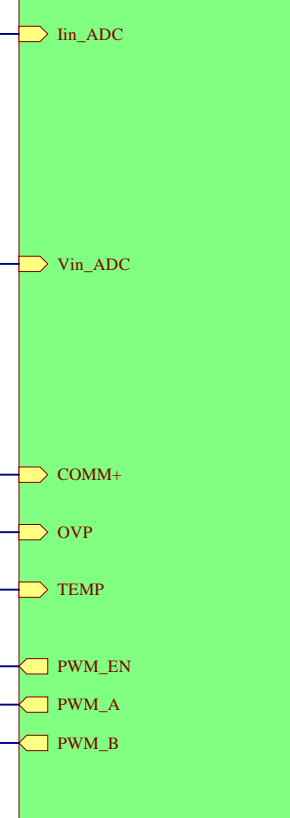
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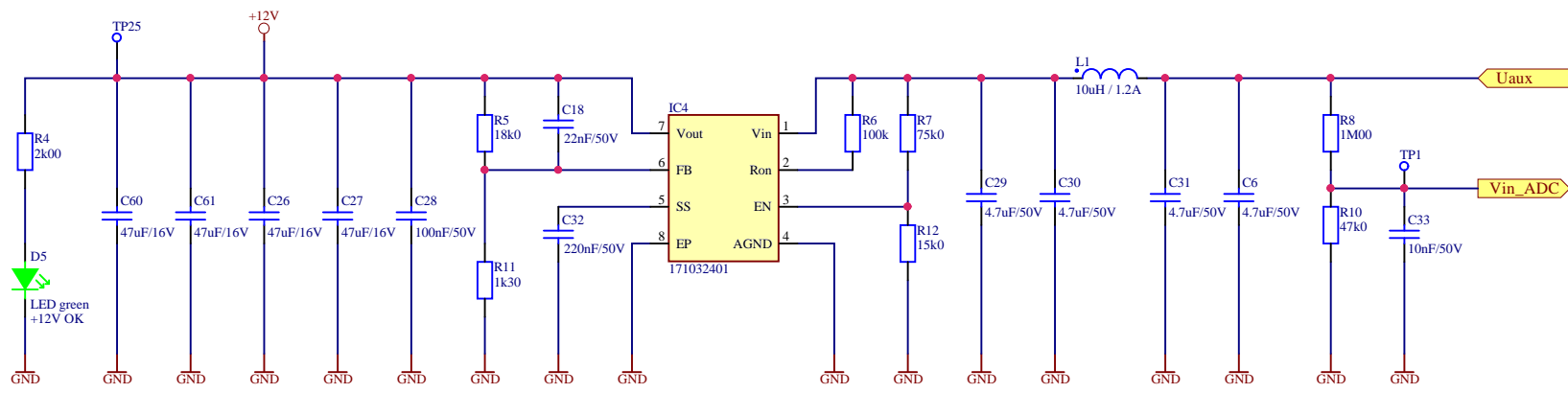
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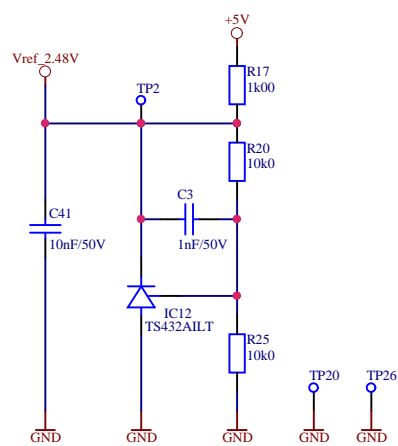
Würth Elektronik eiSos GmbH & Co. KG  
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DESCRIPTION:	
WPC-200W Transmitter Board	
Main Sheet	SIZE
WE-WPC-002-V03-2018	A4





Auxiliary Supply



Voltage Reference 2.48V

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DESCRIPTION:	
WPC-200W Transmitter Board	
Auxillary Supply	SIZE
WE-WPC-002-V03-2018	A4







# Bill of Material

200W WPC Transmitter

Project: 200W WPC Kit  
File: Pro16B.tmp  
Variant: None



Report Date: 23.07.2018  
Print Date: 23-Jul-18  
09:53:04  
9:53:19 AM

#	Designator	Comment	Description	Mounting Style	Package	Manufacturer	Mfr. Part No.	Distributor	Distr. Part No.	Quantity
1	C1, C2, C4, C3, C9, C10, C42, C43, C54, C62	1uF/50V/X7R	Ceramic Capacitor	SMD	0805	Würth Elektronik eSos	885012207103	Würth Elektronik eSos	885012207103	10
2	C3, C24, C36, C37, C38, C52, C58	1nF/50V/X7R	Ceramic Capacitor	SMD	0805	Würth Elektronik eSos	885012207086	Würth Elektronik eSos	885012207086	7
3	C5, C7, C22, C23, C34, C39, C45, C48, C51, C55, C57	100nF/50V/X7R	Ceramic Capacitor	SMD	0805	Würth Elektronik eSos	885012207098	Würth Elektronik eSos	885012207098	11
4	C6, C28, C30, C31	4.7uF/50V/X7R	Ceramic Capacitor	SMD	1210	Würth Elektronik eSos	885012209048	Würth Elektronik eSos	885012209048	4
5	C11, C12, C13, C14, C15, C16, C17, C33, C41, C46, C56, C63	10nF/50V/X7R	Ceramic Capacitor	SMD	0805	Würth Elektronik eSos	885012207092	Würth Elektronik eSos	885012207092	12
6	C18	22nF/50V/X7R	Ceramic Capacitor	SMD	0805	Würth Elektronik eSos	885012207094	Würth Elektronik eSos	885012207094	1
7	C19, C20	470nF/25V	FTX2 Film Capacitor	THT	18mm x 8mm x 14mm	Würth Elektronik eSos	890324025039CS	Würth Elektronik eSos	890324025039CS	2
8	C21	100nF/50V	Ceramic Capacitor	SMD	0805	Würth Elektronik eSos	885012207098	Würth Elektronik eSos	885012207098	1
9	C25	330pF/50V/NP0	Ceramic Capacitor	SMD	0805	Würth Elektronik eSos	885012207054	Würth Elektronik eSos	885012207054	1
10	C26, C27, C60, C61	470pF/16V/X7R	Ceramic Capacitor	SMD	1210	Würth Elektronik eSos	885012109011	Würth Elektronik eSos	885012109011	4
11	C28	100nF/50V/X7R	Ceramic Capacitor	SMD	1206	Würth Elektronik eSos	885012208087	Würth Elektronik eSos	885012208087	1
12	C32	220nF/50V/X7R	Ceramic Capacitor	SMD	0805	Würth Elektronik eSos	885012207100	Würth Elektronik eSos	885012207100	1
13	C35	100nF/50V	Ceramic Capacitor	SMD	1206	Würth Elektronik eSos	885012208087	Würth Elektronik eSos	885012208087	1
14	C40, C44, C47, C49	100nF/250V/COG	Ceramic Capacitor	SMD	1812	Kemet	C1812C104JAGACAUTO	Mouser	80-C1812C104JAGACAUTO	4
15	C50	2.2uF/25V/X7R	Ceramic Capacitor	SMD	0805	Würth Elektronik eSos	885012207079	Würth Elektronik eSos	885012207079	1
16	C53	470pF/50V/NP0	Ceramic Capacitor	SMD	0805	Würth Elektronik eSos	885012007061	Würth Elektronik eSos	885012007061	1
17	C59	opt.	Ceramic Capacitor	SMD	1812	Kemet	C1812C104JAGACAUTO	Mouser	80-C1812C104JAGACAUTO	1
18	CE1, CE2	220uF/50V/ATLL-Series	AL-Eko ATLL-Series	THT	10mm x 16mm	Würth Elektronik eSos	860160675026	Würth Elektronik eSos	860160675026	2
19	CE3	10uF/25V/ASLL-Series	Aluminum Eko ASLL-Series	SMD	4.3mm x 5.5mm	Würth Elektronik eSos	865060440001	Würth Elektronik eSos	865060440001	1
20	CE4, CE5, CE6, CE7	1000uF/35V/ATLL-Series	AL-Eko ATLL-Series	THT	13mm x 35mm	Würth Elektronik eSos	860160578032	Würth Elektronik eSos	860160578032	4
21	D1	LED red	LED Red 0805	SMD	0805	Würth Elektronik eSos	1500808575000	Würth Elektronik eSos	1500808575000	1
22	D2, D5	LED green	LED Green 0805	SMD	0805	Würth Elektronik eSos	1500808575000	Würth Elektronik eSos	1500808575000	2
23	D3	LED blue	LED blue 0805	SMD	0805	Würth Elektronik eSos	1500808575000	Würth Elektronik eSos	1500808575000	1
24	D4	TZMB-4V7	Zener Diode	SMD	MiniMelf (SOD-80)	Vishay	TZMB4V7-GS08	Mouser	78-TZMB4V7	1
25	D6	TFZV1R-5V1B	Zener Diode	SMD	SOD-323HW	Rohm	TFZV1R-5V1B	Mouser	755-TFZV1R-5V1B	1
26	D7, D8, D9, D10, D12, D13	1N4148W	Kleinsignaldiode 75V/0.15A	SMD	SOD-123	Vishay	1N4148W-ES-08	Mouser	78-1N4148W-ES-08	6
27	D14	US1M	Fast Recovery Diode	SMD	SMA	Vishay	US1M-E31T	Mouser	625-US1M-E3	1
28	D15, D17	TFZV1R-30B	Zener Diode	SMD	SOD-323HW	Rohm	TFZV1R-30B	Mouser	755-TFZV1R-30B	2
29	D16	TFZV1R-20B	Zener Diode	SMD	SOD-323HW	Rohm	TFZV1R-20B	Mouser	755-TFZV1R-20B	1
30	D18, D19, D20, D21	1N4148WS	Kleinsignaldiode 75V/0.1A	SMD	SOD-323	Vishay	1N4148WS-ES-08	Mouser	78-1N4148WS-ES-08	4
31	IC1	MAX232CSE	+5V RS232 Driver/Receiver	SMD	SOT16	MAXIM	MAX232CSE+	Mouser	700-MAX232CSE	1
32	IC2	AD6215YRZ	Current Shunt Monitor	SMD	S08	Analog Devices	AD6215YRZ	Mouser	584-AD6215YRZ	1
33	IC3	AD8031	Rail to Rail Op Ampifier	SMD	TO23-5	Analog Devices	AD8031ARTZ	Mouser	584-AD8031ARTZ-R7	1
34	IC4	1F1032401	Variable Step-Down Regulator Module	SMD	TO263-7EP	Würth Elektronik eSos	171032401	Würth Elektronik eSos	171032401	1
35	IC5	AD6642ARZ	Dual JFET Op Ampifier	SMD	S08	Analog Devices	AD6642ARZ	Mouser	584-AD6642ARZ	1
36	IC6	XMCI302-T038X0064 AB	XMCI302 Cortex M0 MCU Series	SMD	TSSOP98	Infineon	XMCI302T038X0064ABXUM A1	Mouser	726-1302T038X0064AB	1
37	IC7	TL5715B0	Lin. Spannungsregler +5V/0.15A	SMD	S08 Exposed Pad	Infineon	TL5715B0EJ/50	Mouser	511-L79L0BACD13TR	1
38	IC9, IC10	RS2008SPBF	High- and Low Side Driver	SMD	S08	Infineon	RS2008SPBF	Mouser	726-RS2008SPBF	2
39	IC12	TS432ALT	1.24 adj. shunt voltage reference	SMD	TO23-3	ST Microelectronics	TS432ALT	Mouser	511-TS432ALT	1
40	J1, J3	Header 2pos.	2 Pos. Dual Pin Header	THT	NA	Würth Elektronik eSos	61308021621	Würth Elektronik eSos	61308021621	2
41	L2	Header 8pos.	8 Pos. Male Box Header	THT	NA	Würth Elektronik eSos	61200821621	Würth Elektronik eSos	61200821621	1
42	J4	DC Jack 24V/5A	DC Power Jack Right Angled SMT 06.4 with 4 soldering pads & pegs WR-DC	SMD	NA	Würth Elektronik eSos	694108106102	Würth Elektronik eSos	694108106102	1
43	J5	Header 2pos.	2pos. RM 5.08 Horizontal PCB Header	THT	NA	Würth Elektronik eSos	691313510002	Würth Elektronik eSos	691313510002	1
44	L1	10uH1.2A	SMD Shielded Inductor	SMD	3020	Würth Elektronik eSos	74438336100	Würth Elektronik eSos	74438336100	1
45	L2	2x220uH12A	Common Mode Power Line Choke	THT	WE-ExB-L	Würth Elektronik eSos	7448444221	Würth Elektronik eSos	7448444221	1
46	MP1, MP2, MP3, MP4	Plastic Spacer M3 /A / 10mm	Plastic Spacer M3 /A / 10mm	NA	NA	Würth Elektronik eCan	971100365	Würth Elektronik eCan	971100365	4
47	MP5, MP6, MP7, MP8	Plastic Spacer M3 /I / 30mm	Plastic Spacer M3 /A / 10mm	NA	NA	Würth Elektronik eCan	970300365	Würth Elektronik eCan	970300365	4
48	PCB1	PCB	Placeholder for PCB No. in BOM							1
49	R1, R2, R20, R25, R30, R33, R34, R38, R46	10k0 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW080510K0FKEB	Mouser	71-CRCW080510K0FKEB	9
50	R3	6k80 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW08056K80FKEA	Mouser	71-CRCW0805-6.8K-E3	1
51	R4, R41	2k00 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW08052K00FKEB	Mouser	71-CRCW08052K00FKEB	2
52	R5	18k0 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW080518K0FKEA	Mouser	71-CRCW080518K0FKEA	1
53	R6, R9, R40, R42	100k / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW0805100KFKEB	Mouser	71-CRCW0805100KFKEB	4
54	R7	2k00 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW08052K00FKEB	Mouser	71-CRCW08052K00FKEB	1
55	R9	1M00 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW08051M00FKEB	Mouser	71-CRCW08051M00FKEB	1
56	R10	47k0 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW080547K0FKEB	Mouser	71-CRCW080547K0FKEB	1
57	R11	1k30 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW08051K30FKEB	Mouser	71-CRCW08051K30FKEB	1
58	R12, R47	15k0 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW080515K0FKEB	Mouser	71-CRCW080515K0FKEB	2
59	R13	0R005	Current Sense Resistor 3W	SMD	2512	Vishay / Dale	WLSL_P2512SL000FEA	Mouser	71-WLSL_P2512SL000FEA	1
60	R14, R18	2k20 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW08052K20FKEB	Mouser	71-CRCW08052K20FKEB	2
61	R15, R16	470R / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW0805470RFKEB	Mouser	71-CRCW0805470RFKEB	2
62	R17, R26, R37, R53, R54, R56	1k00 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW08051K00FKEA	Mouser	71-CRCW0805-1.0K-E3	6
63	R19	NTC 10K	NTC Thermistor 10K J62B4500	SMD	0805	TDK	B57431V2103J62	Mouser	871-B57431V2103J62	1
64	R21, R22, R27, R28	4R70 / 1%	Thick Film Resistor	SMD	1206	Vishay	CRCW12064R70FKEA	Mouser	71-CRCW12064R70FKEA	4
65	R23, R24, R31, R32	10R0 / 1%	Thick Film Resistor	SMD	1206	Vishay	CRCW120610R0FKEA	Mouser	71-CRCW120610R0FKEA	4
66	R29	100R / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW0805100RFKEB	Mouser	71-CRCW0805100RFKEB	1
67	R35	150k / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW0805150KFKEB	Mouser	71-CRCW0805150KFKEB	1
68	R36	24k0 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW080524K0FKEA	Mouser	71-CRCW0805-24K-E3	1
69	R39	24k0 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW080524K0FKEA	Mouser	71-CRCW080524K0FKEA	1
70	R43, R44	2M00 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW08052M00FKEA	Mouser	71-CRCW0805-2M-E3	2
71	R45	5k10 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW08055K10FKEA	Mouser	71-CRCW0805-5.1K-E3	1
72	R48, R49, R50	4k70 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW08054K70FKEB	Mouser	71-CRCW08054K70FKEB	3
73	R51, R52	0R00 / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW08050000ZSTC	Mouser	71-CRCW08050000ZSTC	2
74	R55	470k / 1%	Thick Film Resistor	SMD	0805	Vishay	CRCW0805470KFKEA	Mouser	71-CRCW0805470KFKEA	1
75	S1	PEC11R-4115K-S0018	Encoder 360° / 18 Pulses	THT	NA	Bourns	PEC11R-4115K-S008	Mouser	652-PEC11R3115K50018	1
76	T1, T2, T3, T4, T5	FD046N08N5	N-Channel MOSFET	SMD	TO252-3	Infineon	FD046N08N6	Mouser	726-FD046N08N611MA1	5

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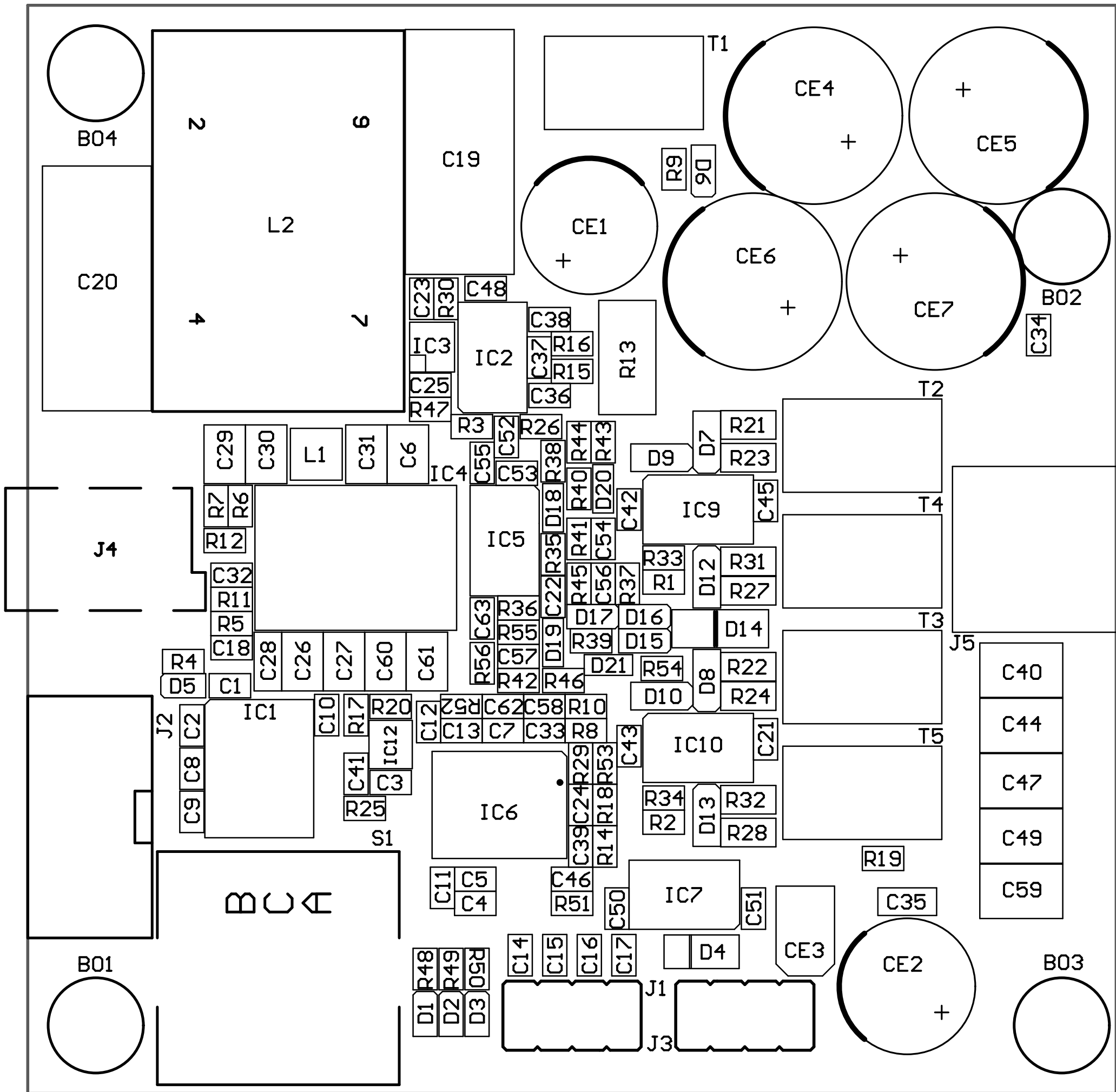
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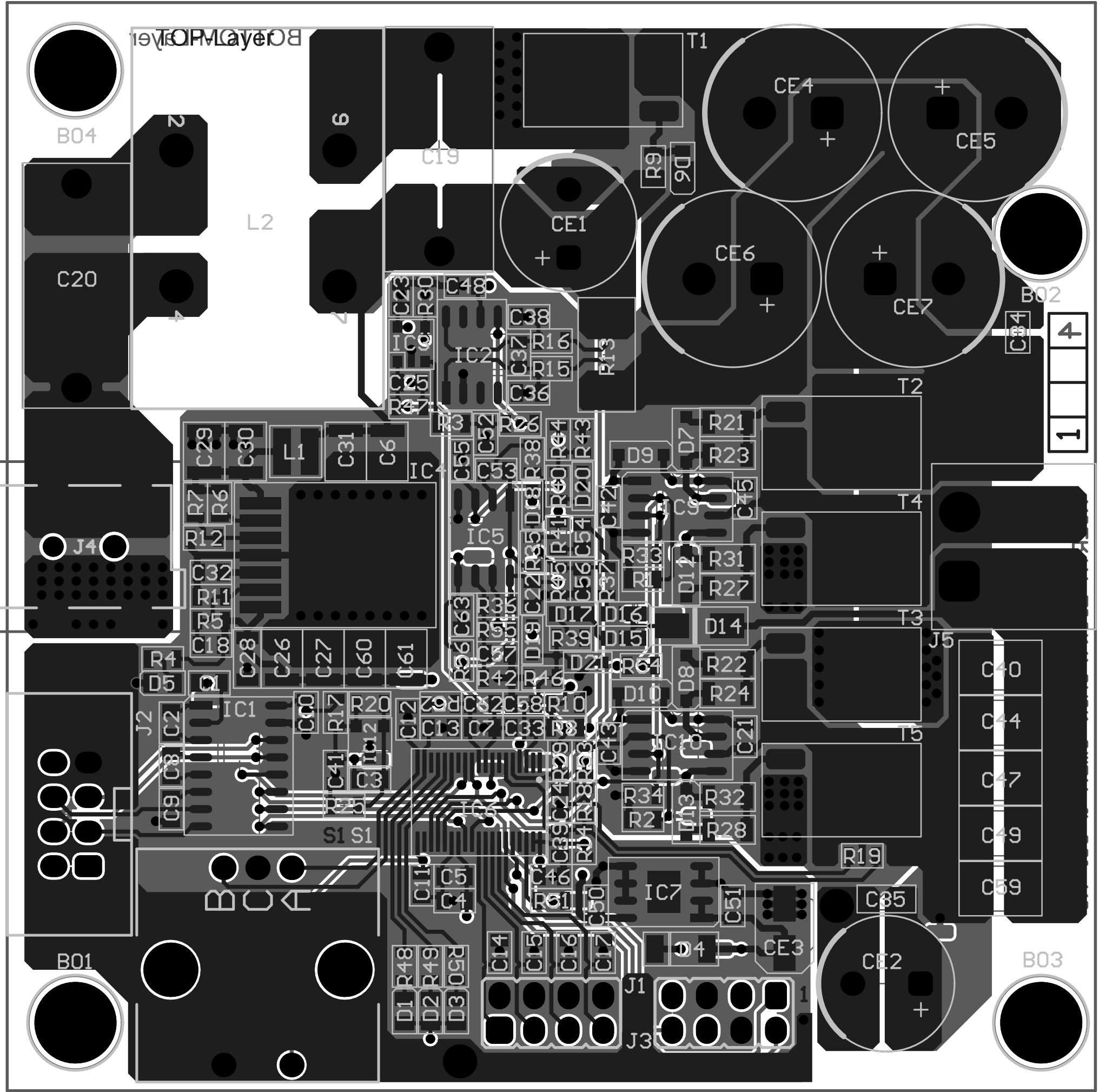
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