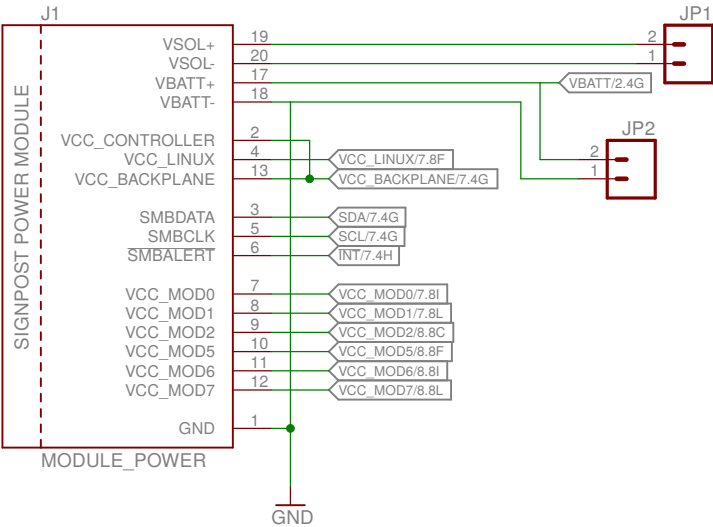


Power Module Header



Power Supply Module

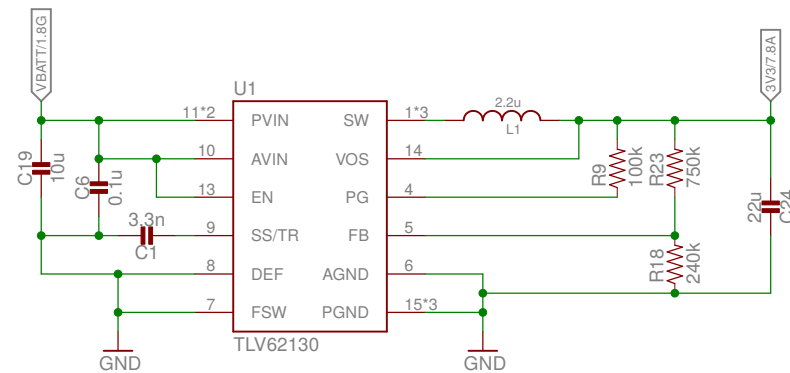
REV:
A

Author: N. Jackson

Date: 9/8/16 1:00 AM

Sheet: 1/9

3v3 Rail



Power Supply Module

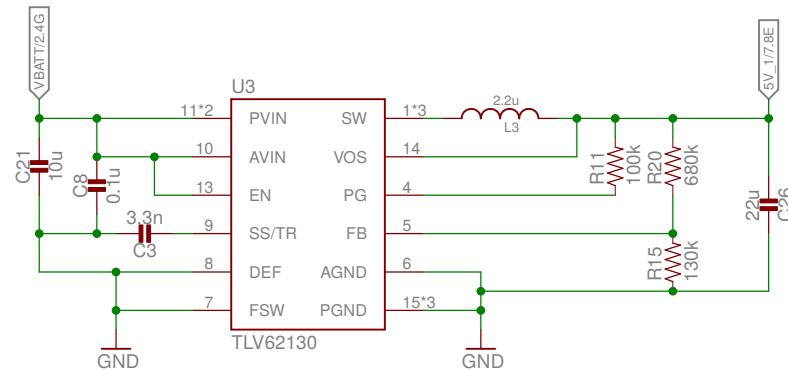
REV:
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Author: N. Jackson

Date: 9/8/16 1:00 AM

Sheet: 2/9

5v Rail 1



Power Supply Module

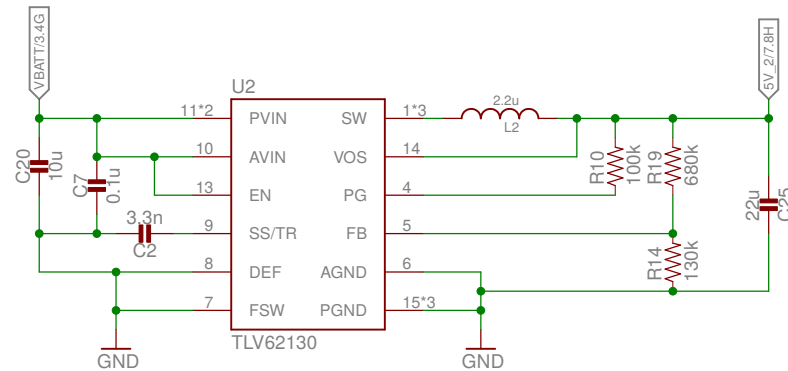
REV:
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Author: N. Jackson

Date: 9/8/16 1:00 AM

Sheet: 3/9

5v Rail 2



Power Supply Module

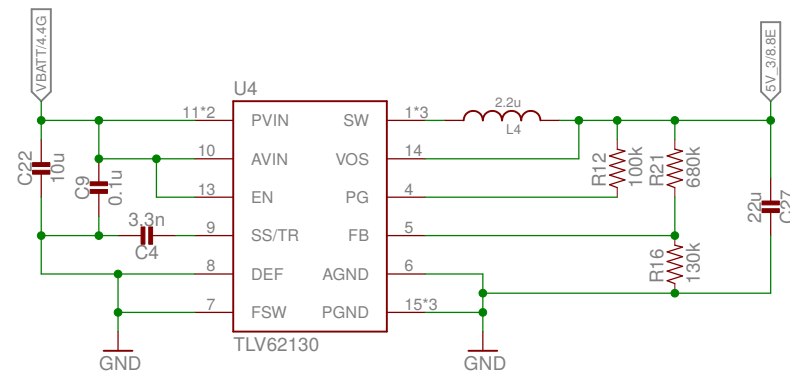
REV:
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Author: N. Jackson

Date: 9/8/16 1:00 AM

Sheet: 4/9

5v Rail 3



Power Supply Module

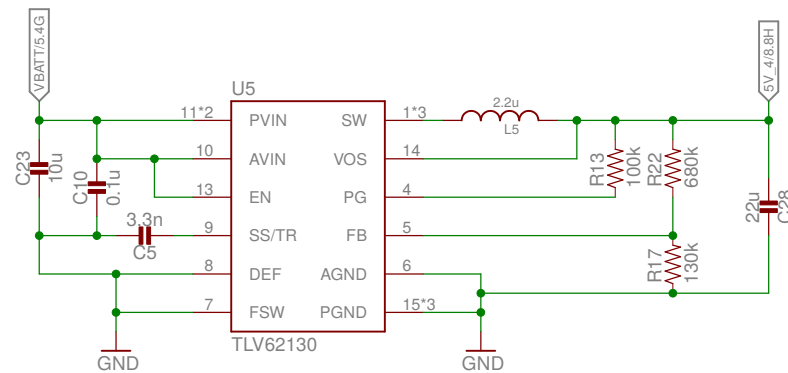
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Author: N. Jackson

Date: 9/8/16 1:00 AM

Sheet: 5/9

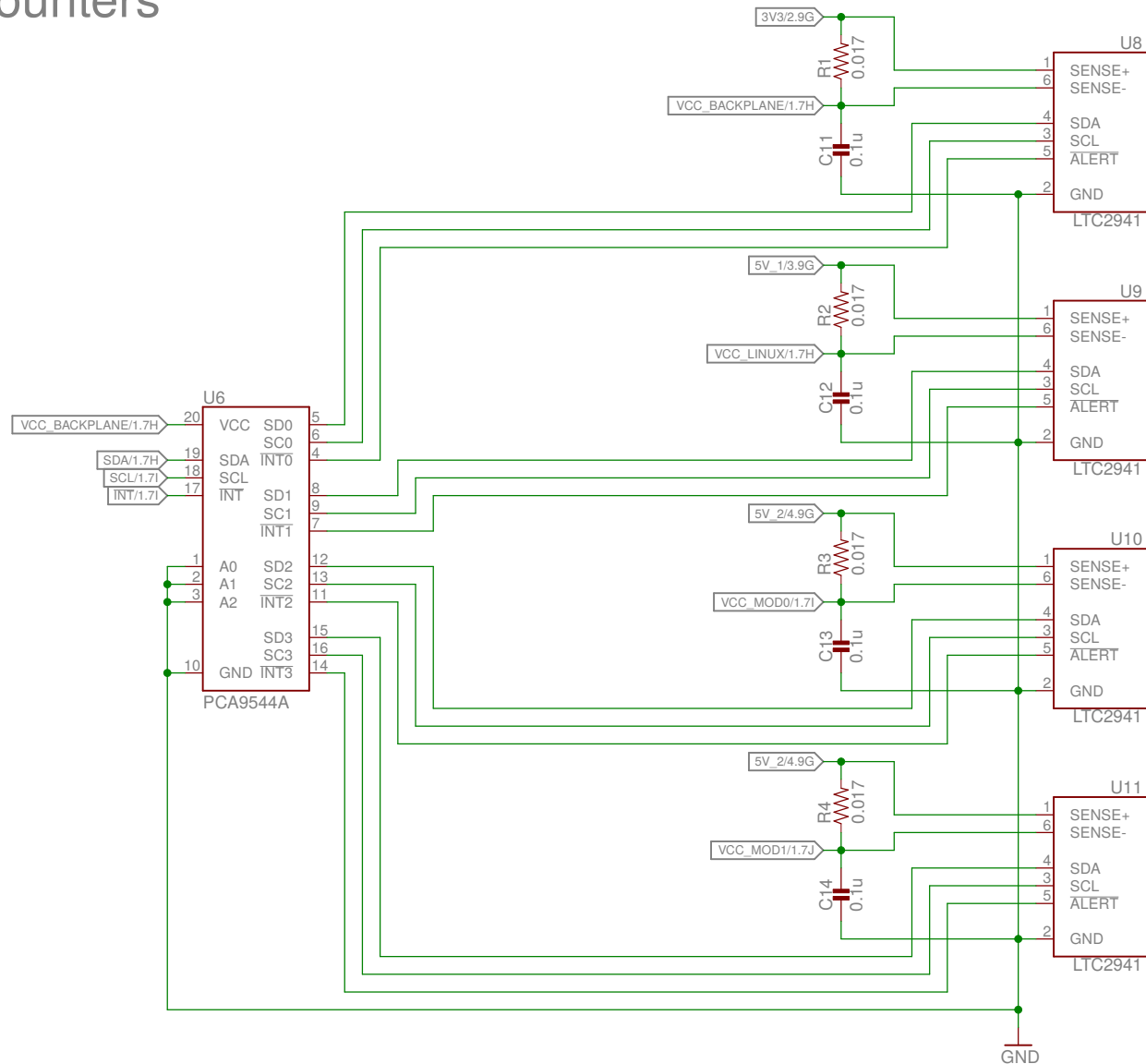
5v Rail 4



Power Supply Module		REV: A
Author: N. Jackson		
Date: 9/8/16 1:00 AM	Sheet: 6/9	

Coulomb Counters

For MOD0-2,5



Power Supply Module

REV:
A

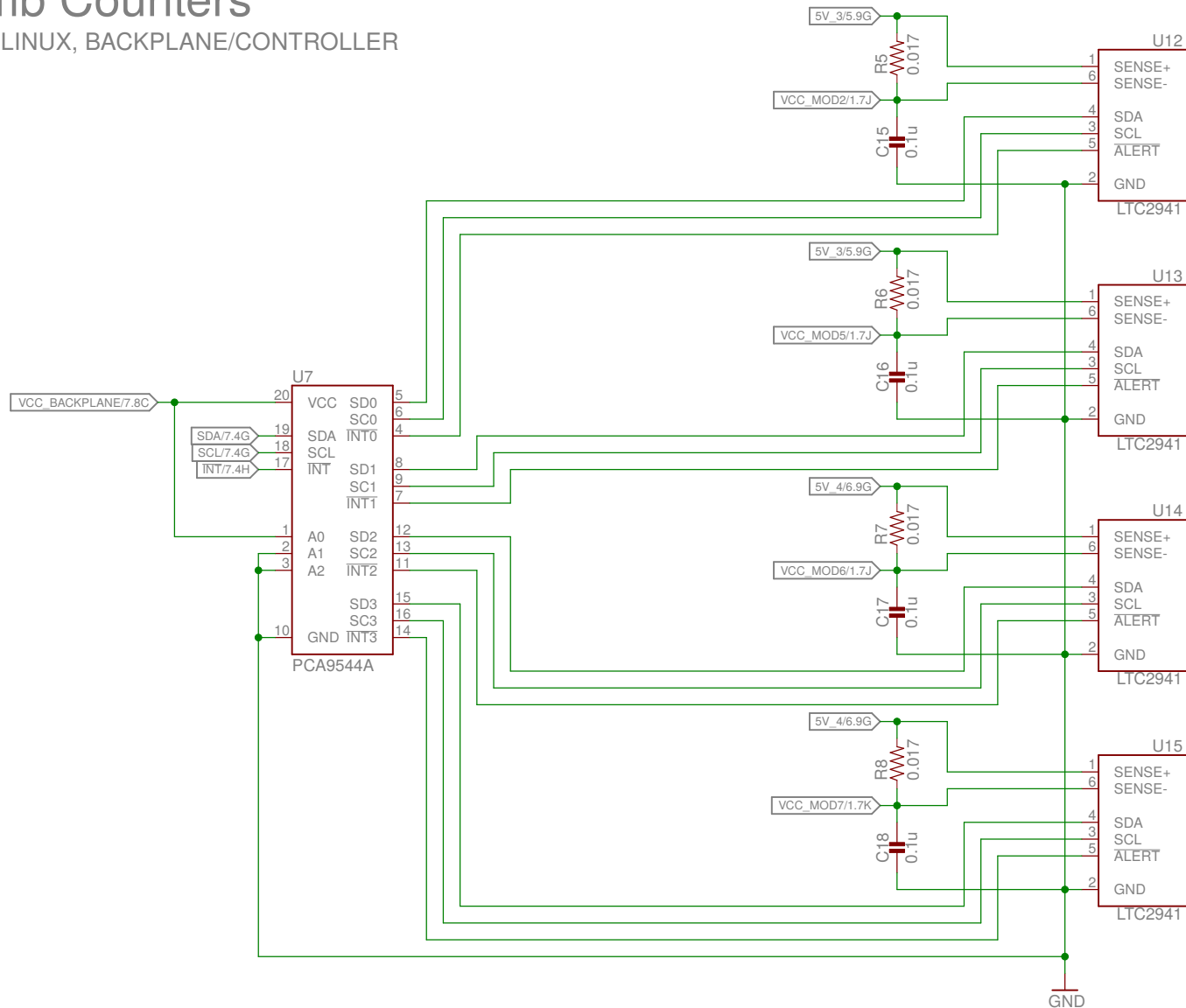
Author: N. Jackson

Date: 9/8/16 1:00 AM

Sheet: 7/9

Coulomb Counters

For MOD6-7, LINUX, BACKPLANE/CONTROLLER



Power Supply Module

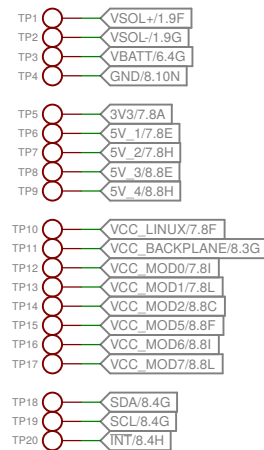
REV:
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Author: N. Jackson

Date: 9/8/16 1:00 AM

Sheet: 8/9

Debugging



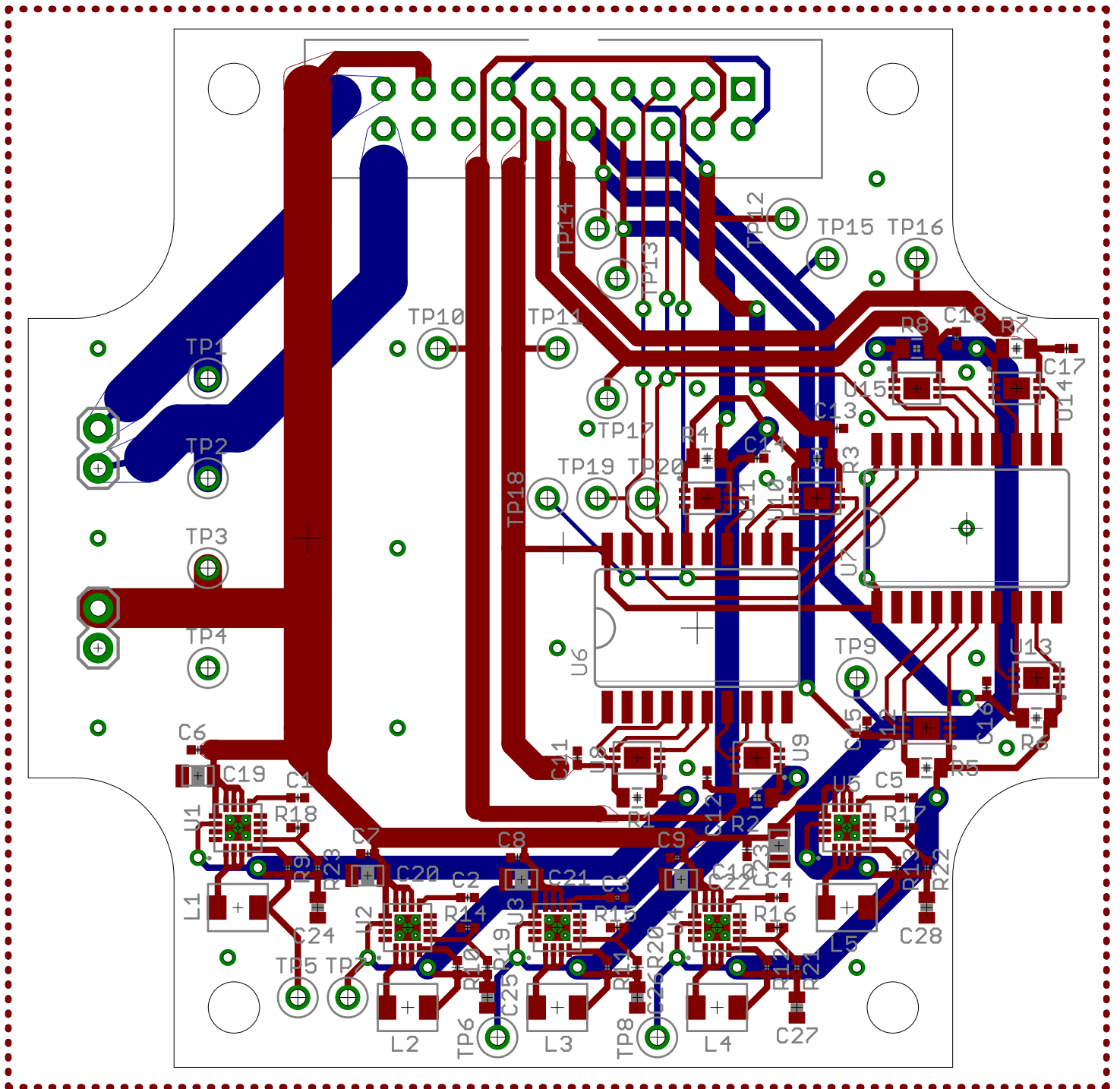
Power Supply Module

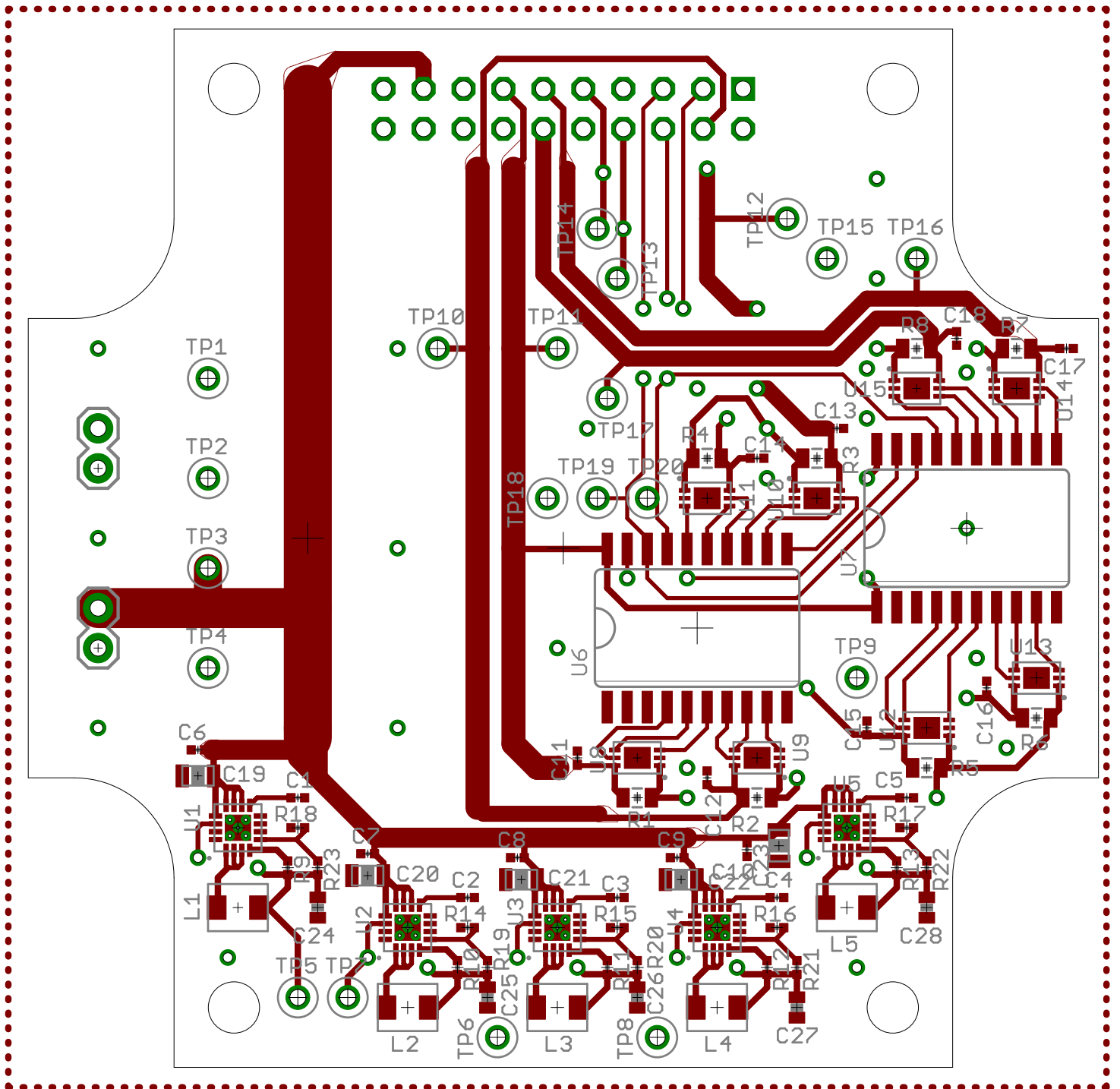
REV:
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Author: N. Jackson

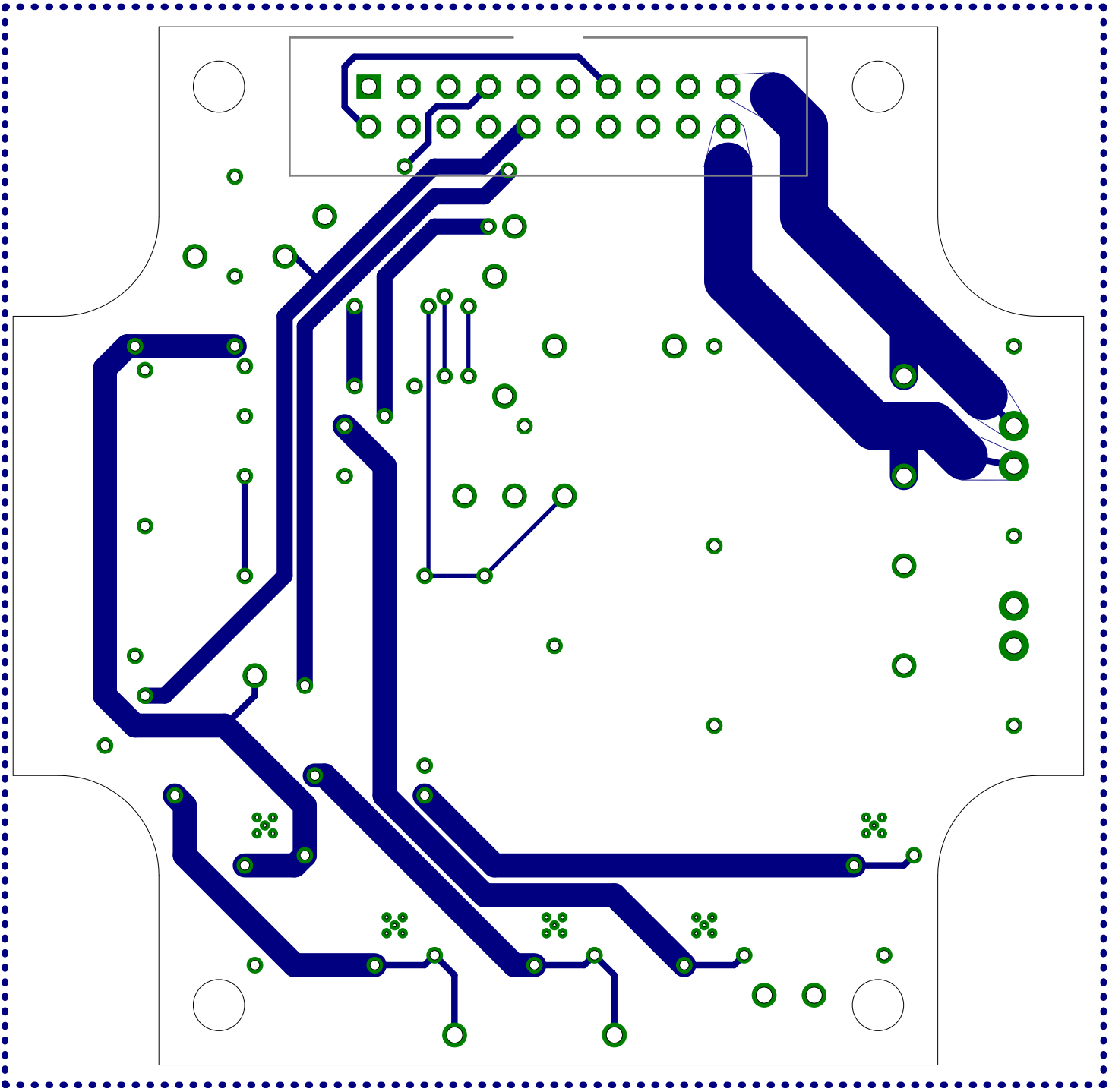
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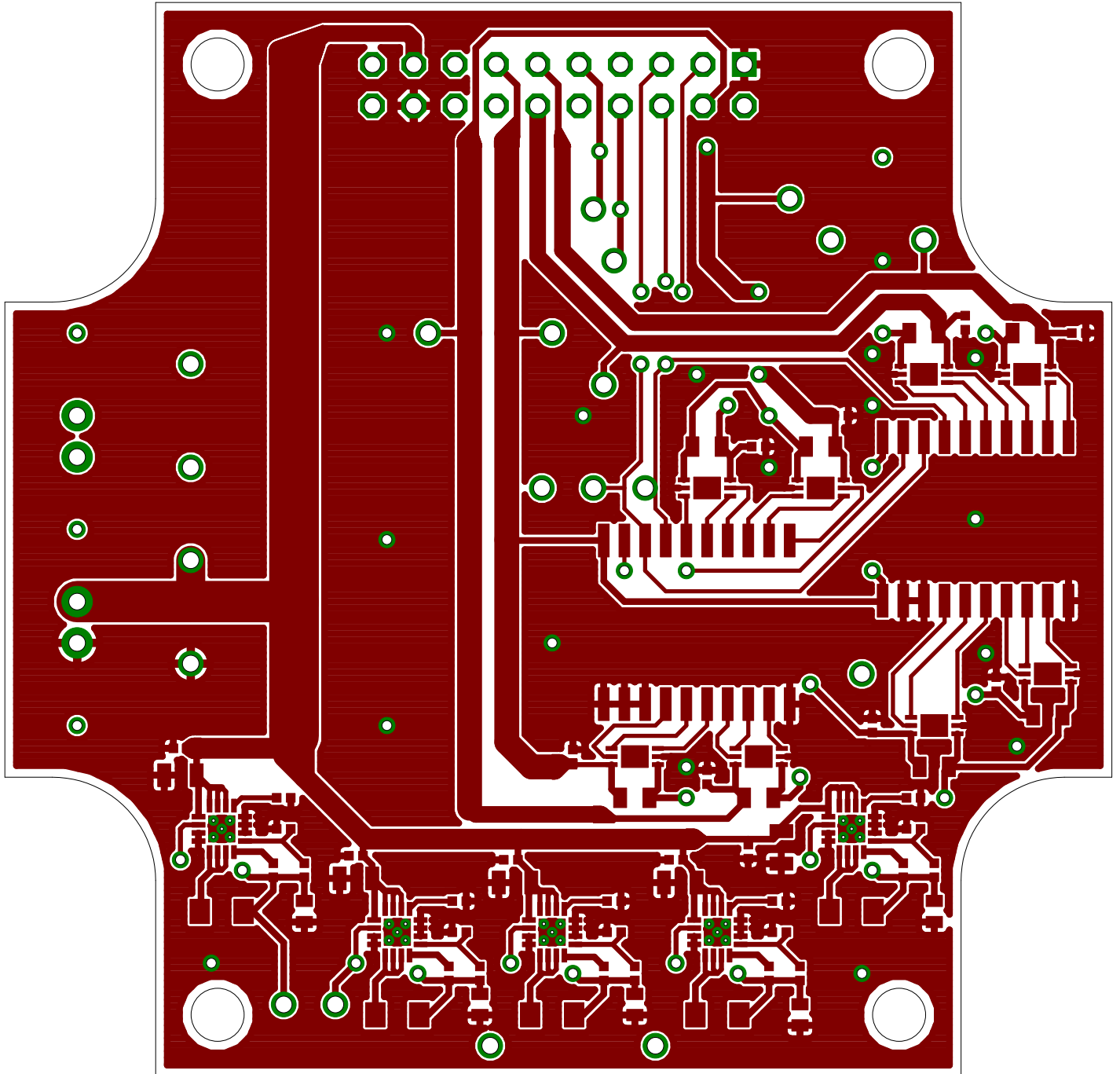
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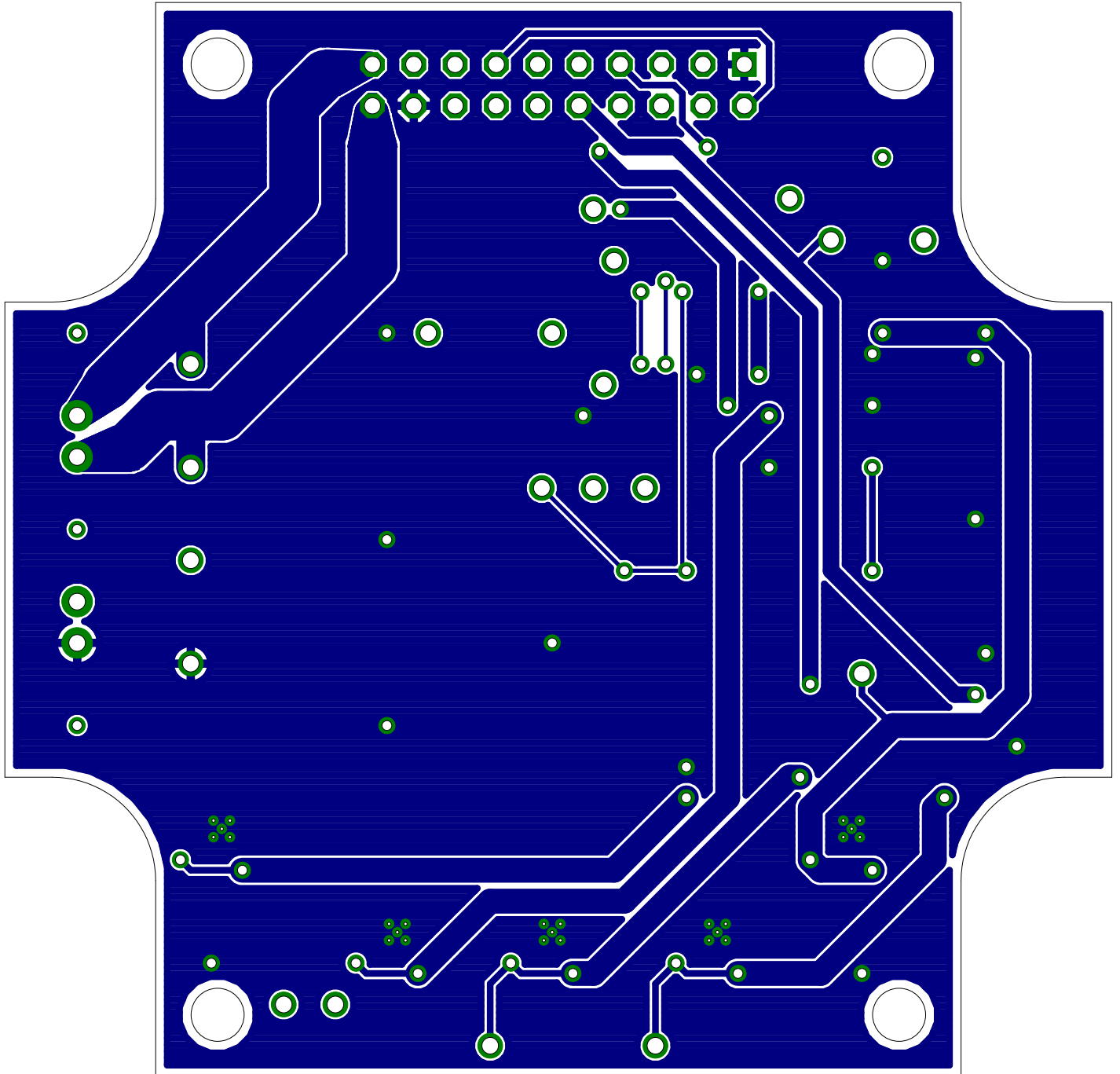


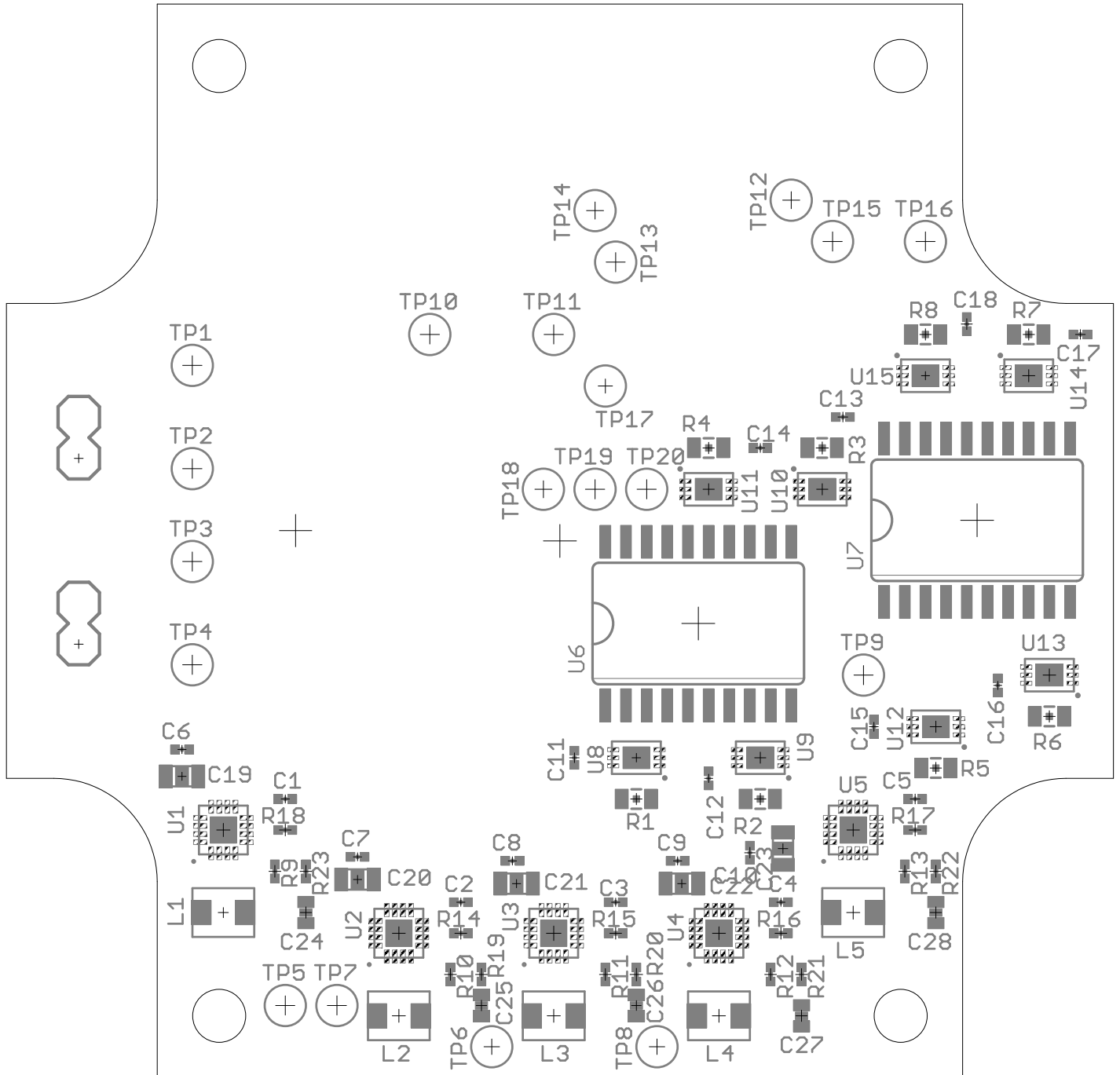
Bottom Layer



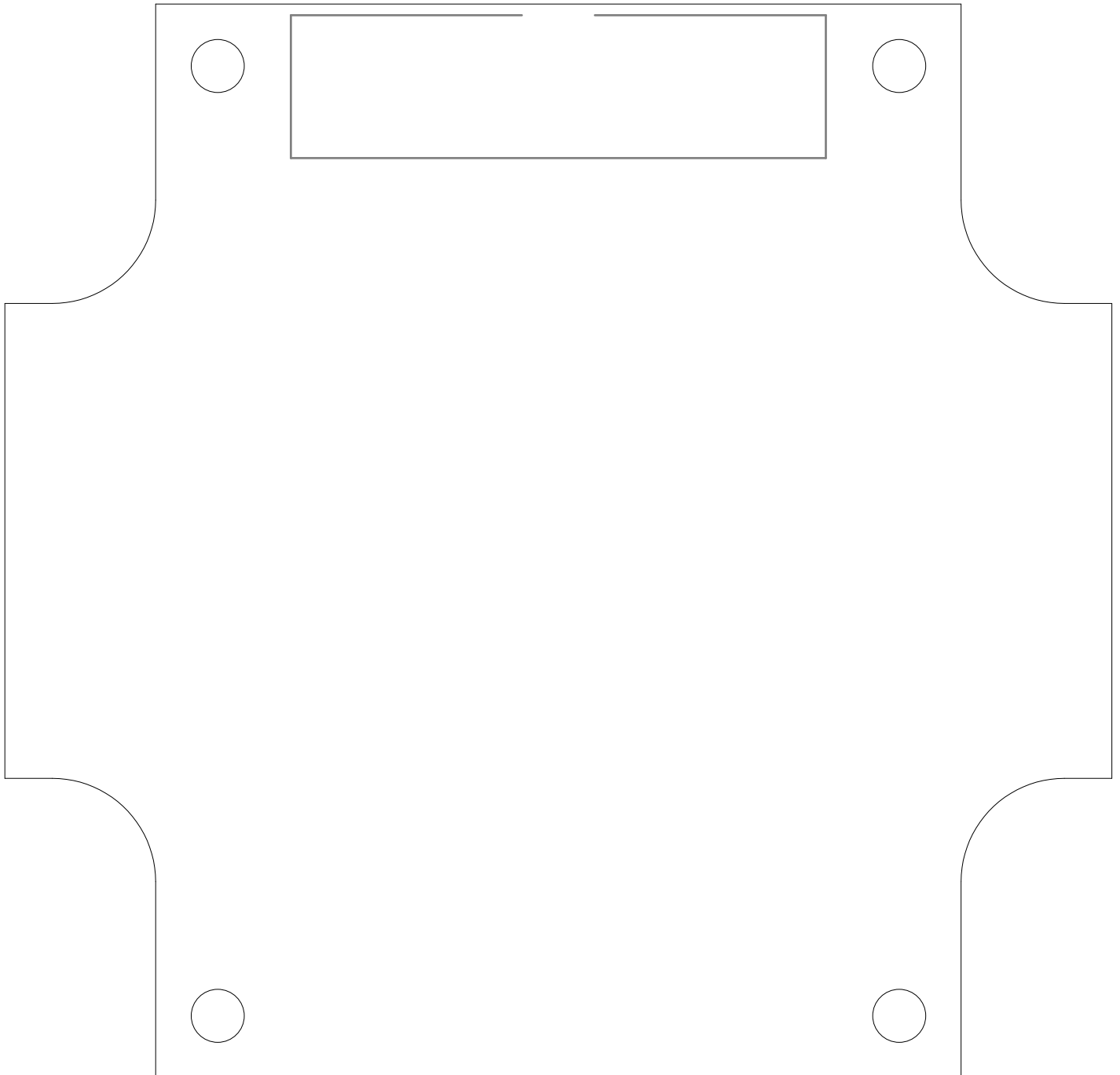


Bottom Copper Layer

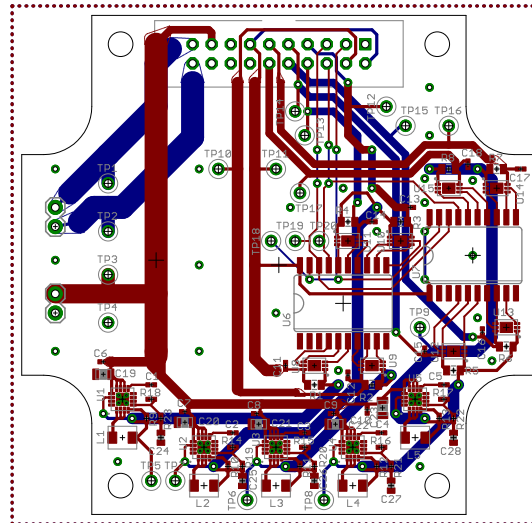


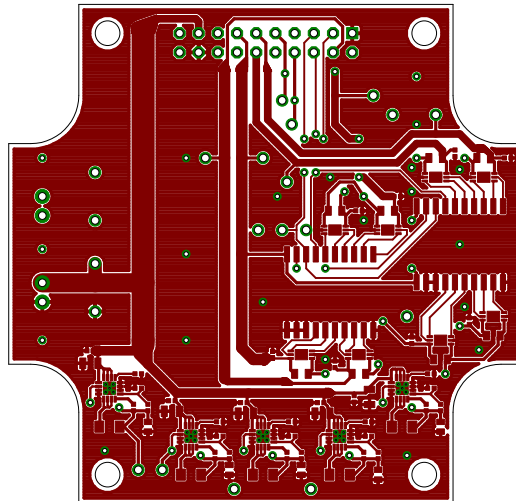


Bottom Paste Layer with Silkscreen

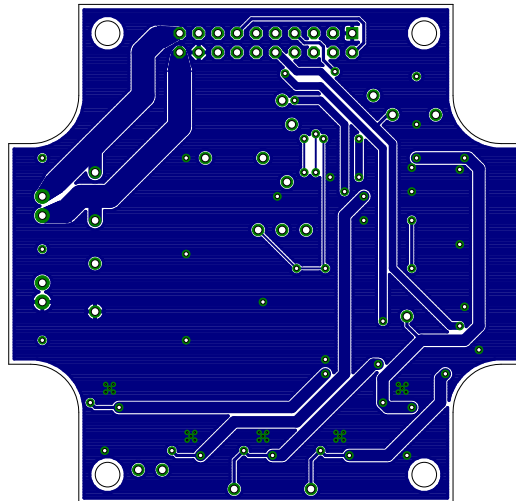


Top and Bottom Layers 1:1 Scale





Bottom Copper Layer 1:1 Scale



power_supply_module

Qty	Value	Device	Package
8		0.017 RESISTOR0805_RES	0805_RES
5	100k	RESISTOR0402_RES	0402_RES
4	130k	RESISTOR0402_RES	0402_RES
1	240k	RESISTOR0402_RES	0402_RES
4	680k	RESISTOR0402_RES	0402_RES
1	750k	RESISTOR0402_RES	0402_RES
5	3.3n	CAPACITOR0402_CAP	0402_CAP
13	0.1u	CAPACITOR0402_CAP	0402_CAP
5	10u	CAPACITOR0603_CAP	0805_CAP
5	22u	CAPACITOR0603_CAP	0603_CAP
5	2.2u	INDUCTORIHL	IHL-1212BZ-11
5	TLV62130	TLV62130	TQFN-16/3MM
2	PCA9544A	PCA9544A	SO20L
8	LTC2941	LTC2941	DFN-6-2MMX3MM

power_supply_module

Parts

R1, R2, R3, R4, R5, R6, R7, R8

R9, R10, R11, R12, R13

R14, R15, R16, R17

R18

R19, R20, R21, R22

R23

C1, C2, C3, C4, C5

C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18

C19, C20, C21, C22, C23

C24, C25, C26, C27, C28

L1, L2, L3, L4, L5

U1, U2, U3, U4, U5

U6, U7

U8, U9, U10, U11, U12, U13, U14, U15

power_supply_module

Description	DIGIKEY
Resistor	WSLPB-.017CT-ND
Resistor	P100KJCT-ND
Resistor	P130KLCT-ND
Resistor	P240KLCT-ND
Resistor	P680KLCT-ND
Resistor	P750KLCT-ND
0402 Capacitor	490-3248-1-ND
0402 Capacitor	490-5920-1-ND
0805 Capacitor	490-5523-1-ND
0603 Capacitor	1276-1193-1-ND
A very specific inductor	541-1322-1-ND
High Efficient 3A switching step-down regulator. 1V-5V out, 4V-17V in.	296-35978-1-ND
1-4 I2C/SMBUS Multiplexer with interrupt for power supply coulomb counters	296-20958-1-ND
I2C Battery Gas Gauge	LTC2941IDCB#TRMPBFCT-ND