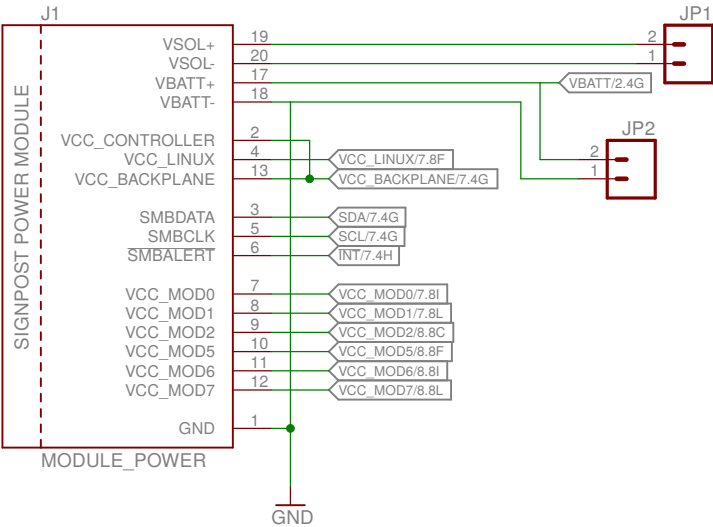


# Power Module Header



Power Supply Module

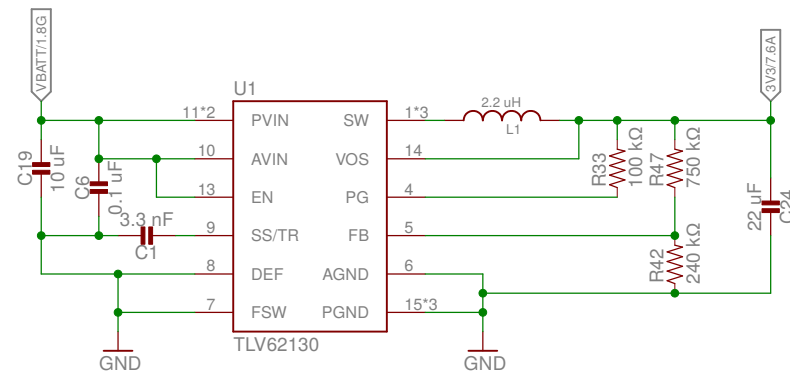
REV:  
A

Author: N. Jackson

Date: 9/19/16 10:38 PM

Sheet: 1/9

## 3v3 Rail



Power Supply Module

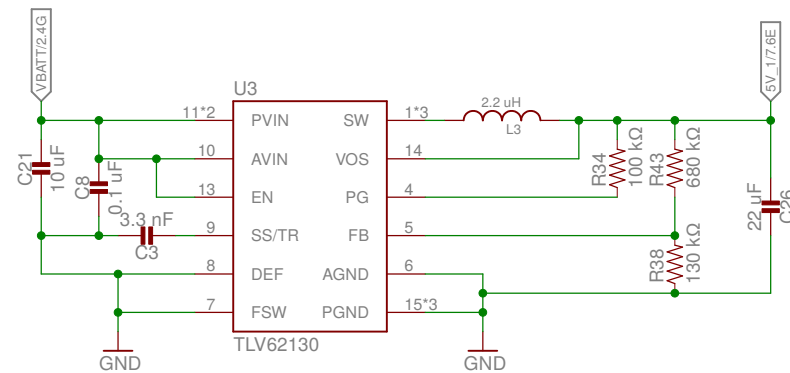
REV:  
A

Author: N. Jackson

Date: 9/19/16 10:38 PM

Sheet: 2/9

# 5v Rail 1



Power Supply Module

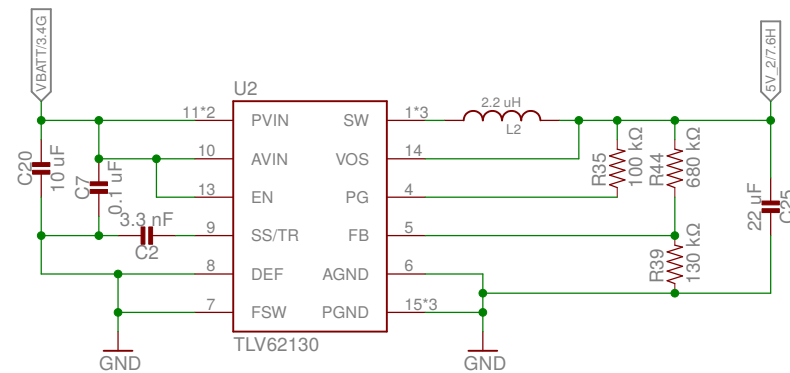
REV:  
A

Author: N. Jackson

Date: 9/19/16 10:38 PM

Sheet: 3/9

## 5v Rail 2



Power Supply Module

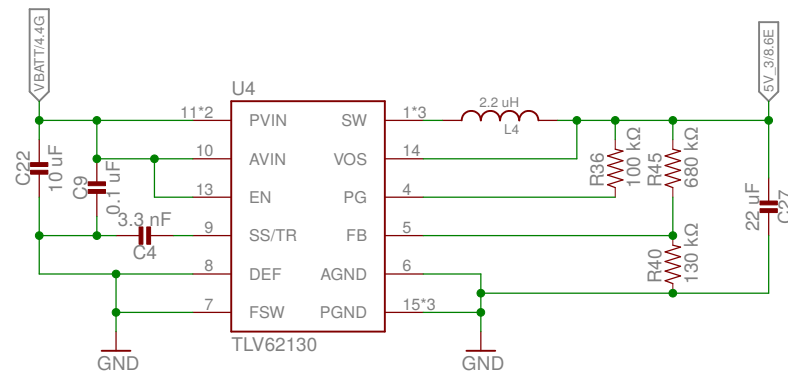
REV:  
A

Author: N. Jackson

Date: 9/19/16 10:38 PM

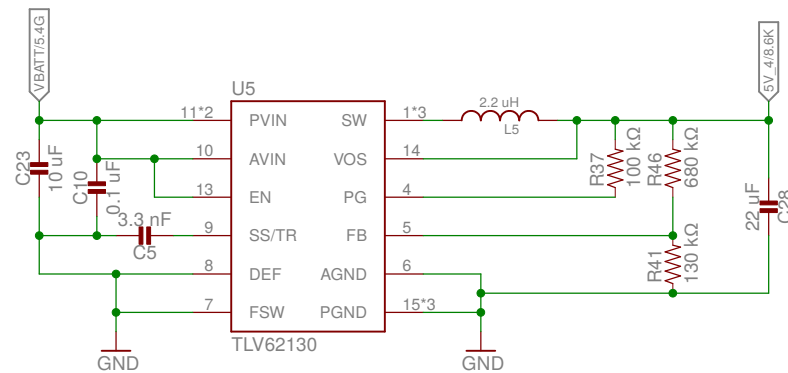
Sheet: 4/9

## 5v Rail 3



Power Supply Module		REV: A
Author: N. Jackson		
Date: 9/19/16 10:38 PM	Sheet: 5/9	

## 5v Rail 4



Power Supply Module

REV:  
A

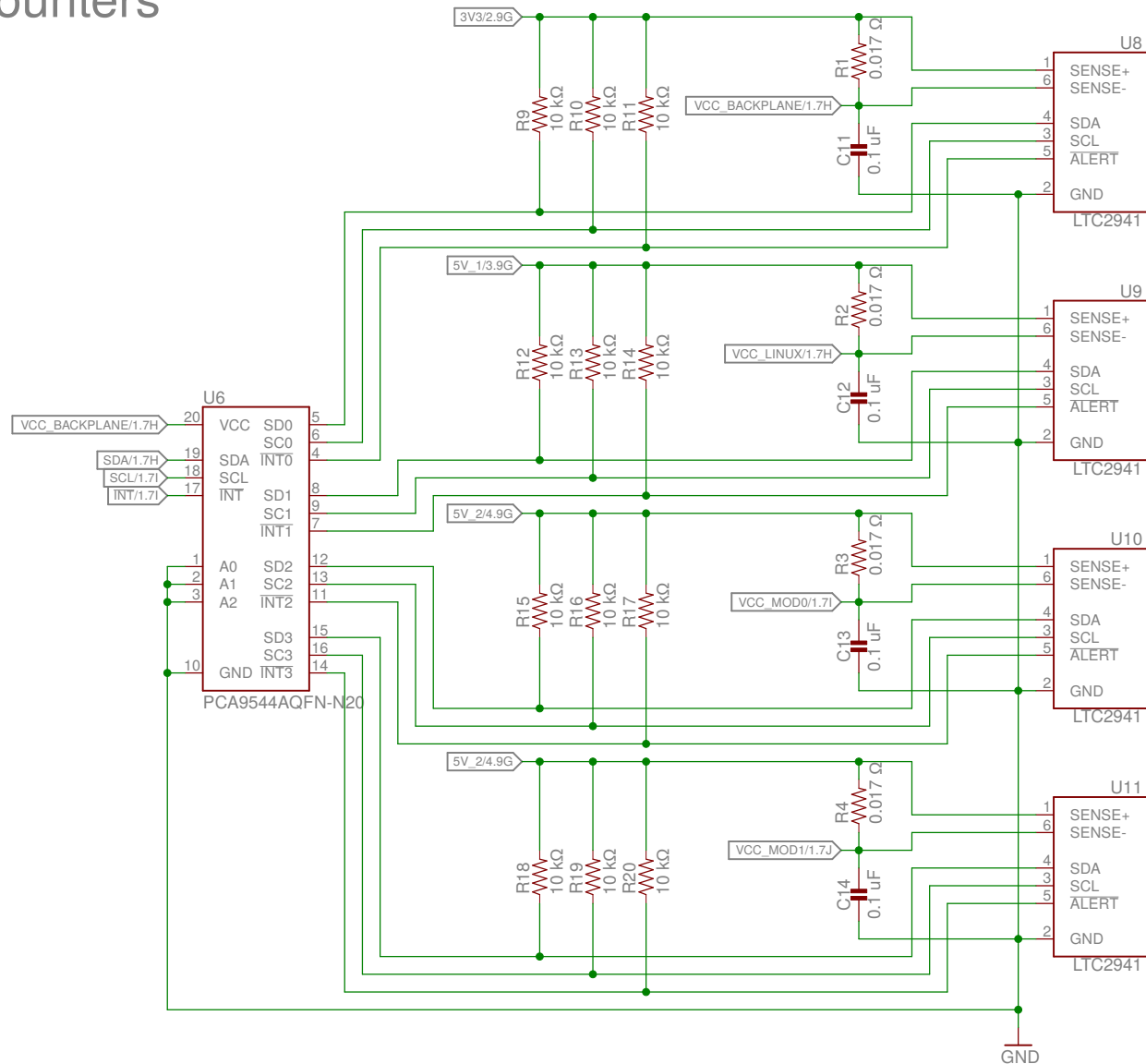
Author: N. Jackson

Date: 9/19/16 10:38 PM

Sheet: 6/9

# Coulomb Counters

For MOD0-2,5



Power Supply Module

REV:  
A

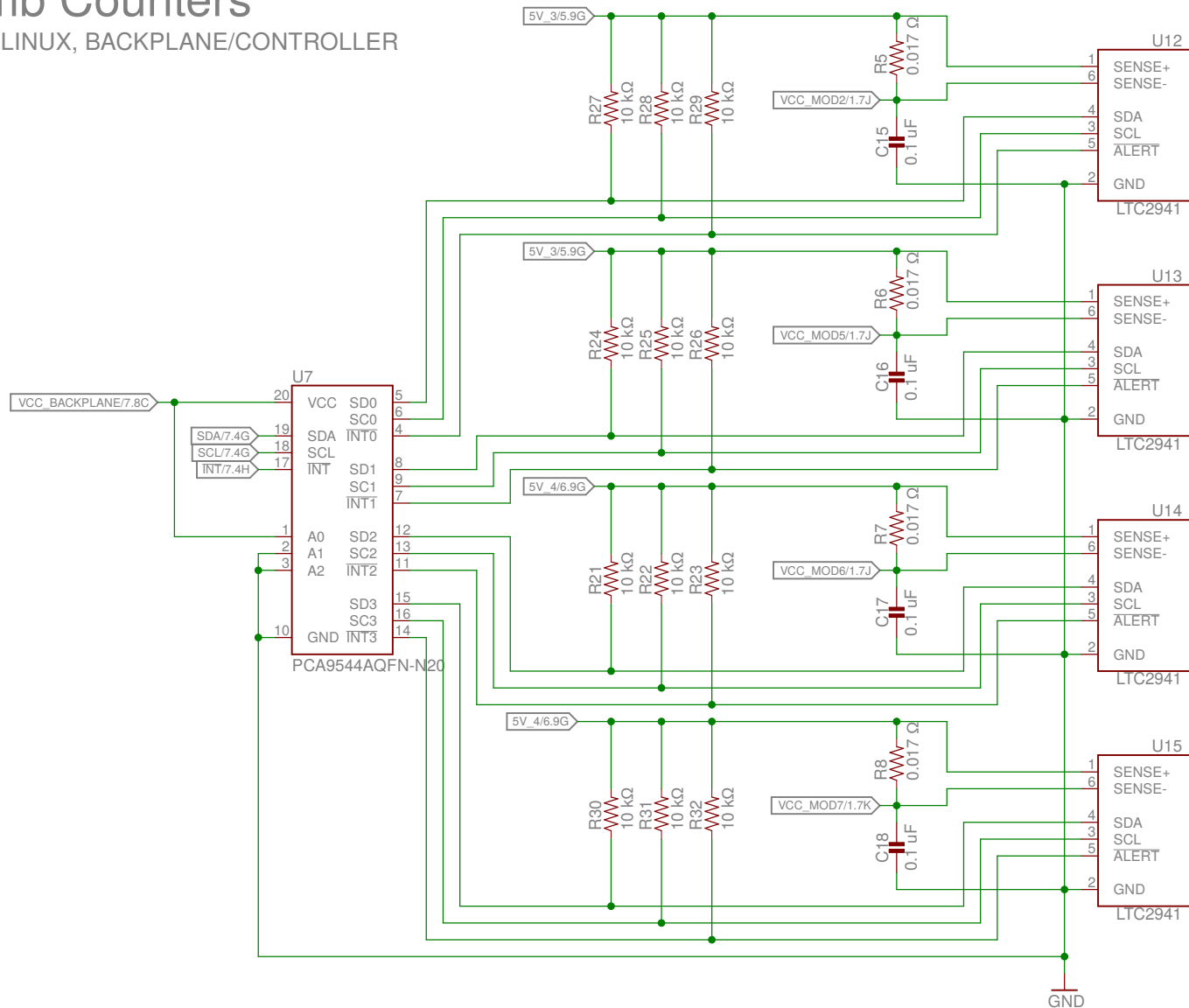
Author: N. Jackson

Date: 9/19/16 10:38 PM

Sheet: 7/9

# Coulomb Counters

For MOD6-7, LINUX, BACKPLANE/CONTROLLER



Power Supply Module

REV:  
A

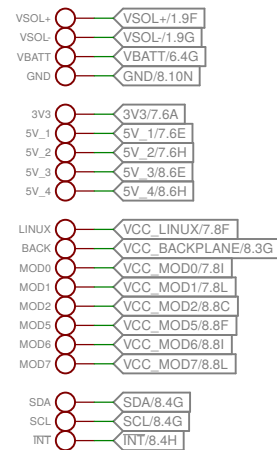
Author: N. Jackson

Date: 9/19/16 10:38 PM

Sheet: 8/9



# Debugging



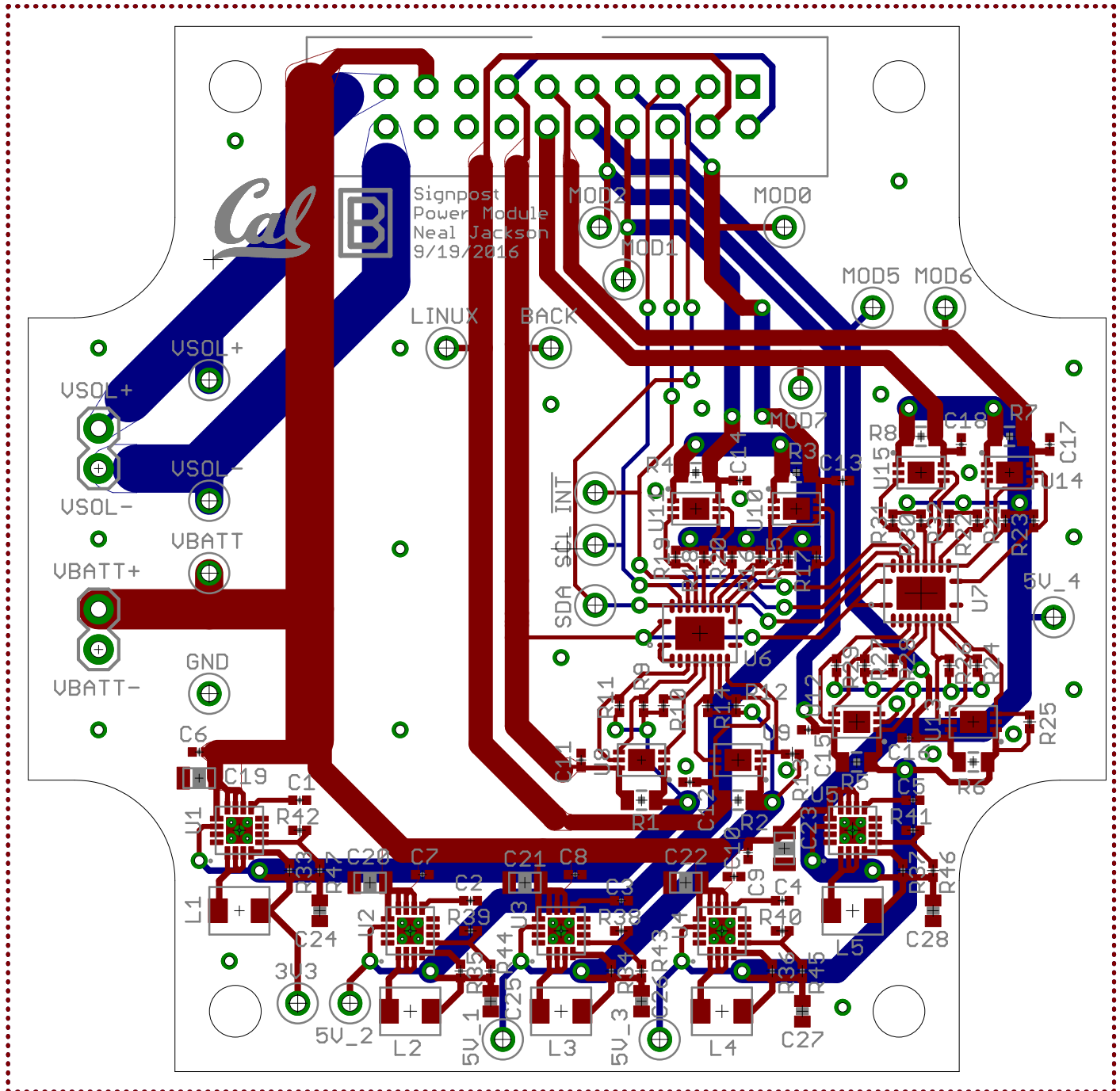
Power Supply Module

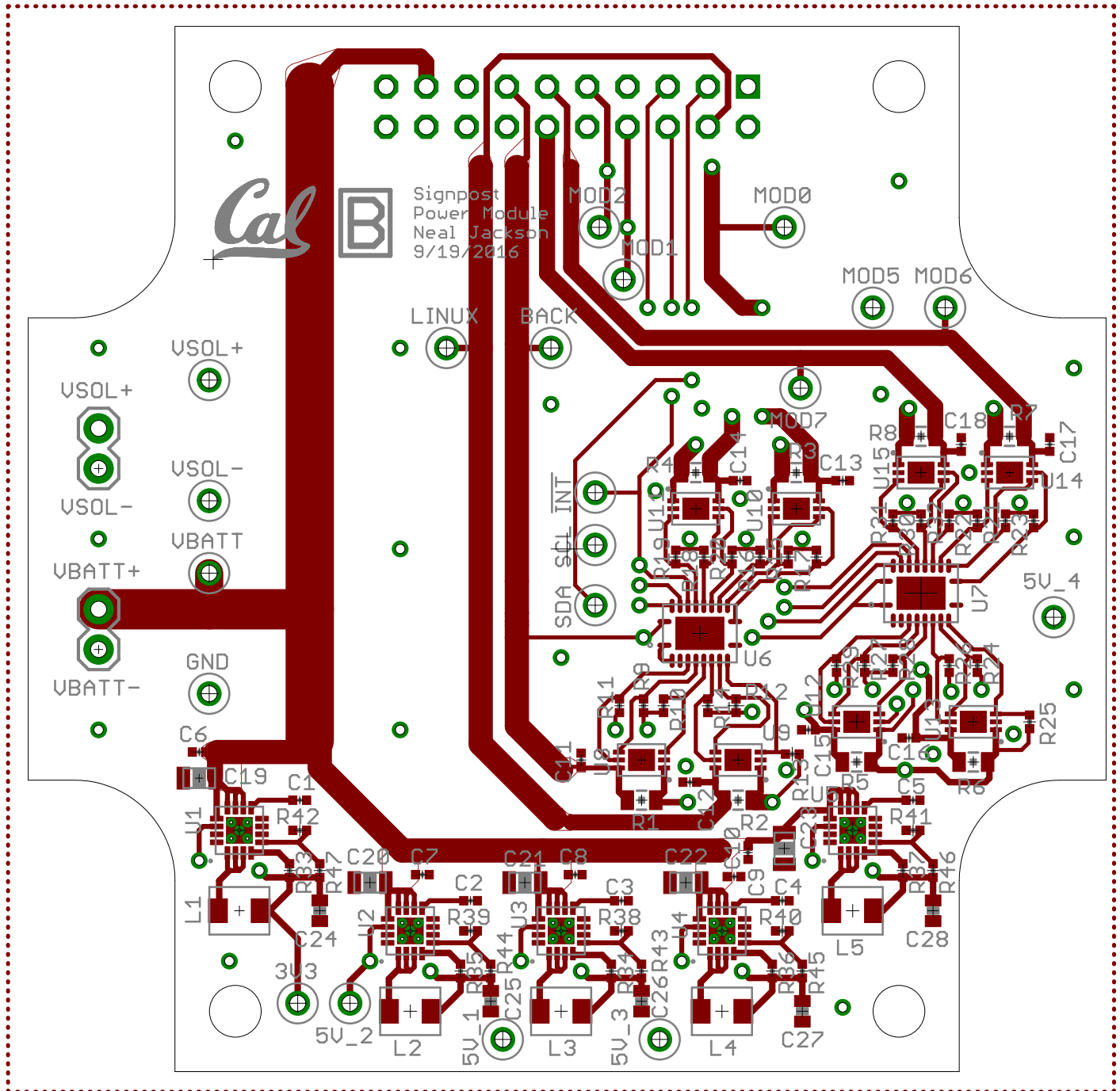
REV:  
A

Author: N. Jackson

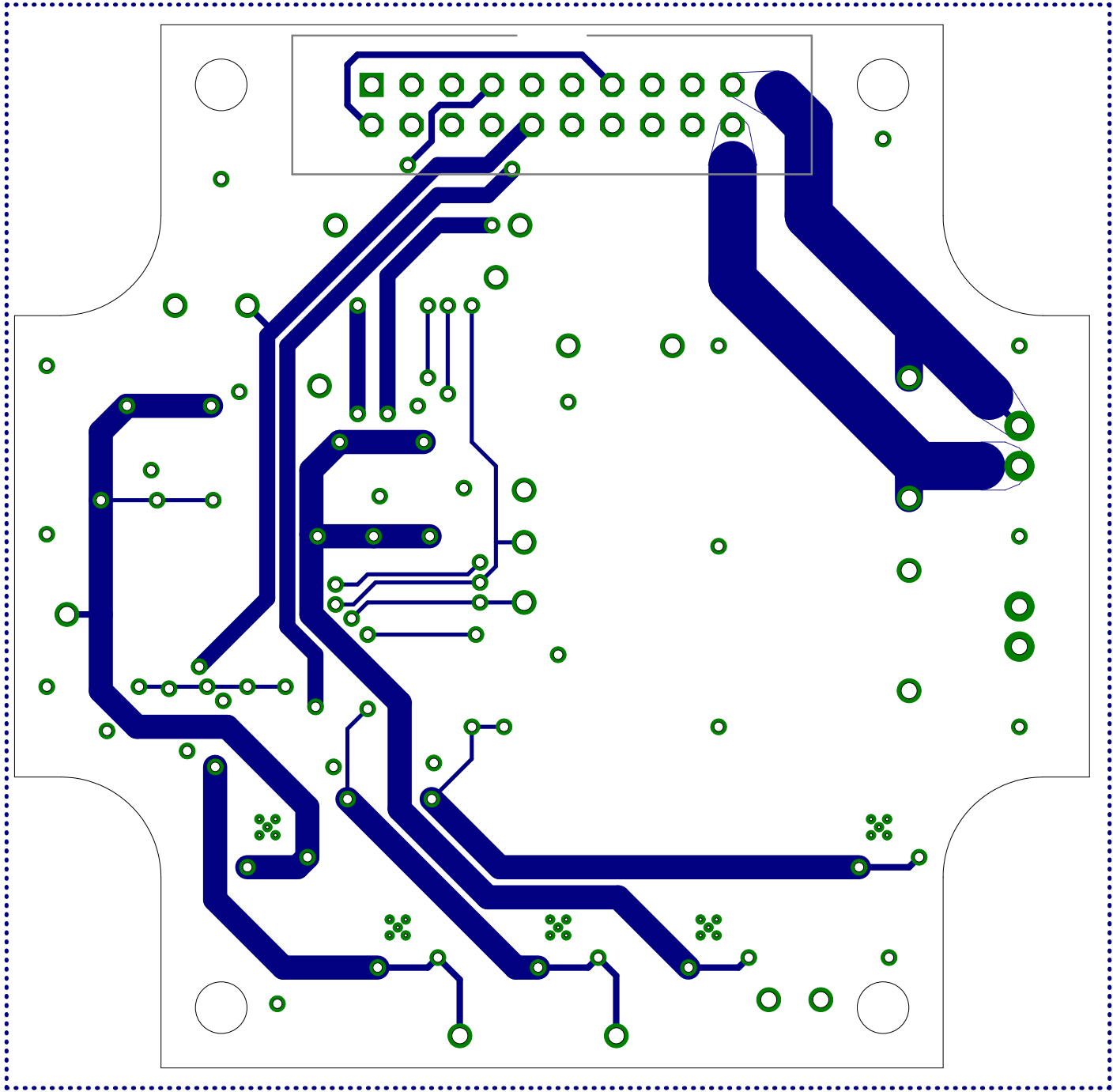
Date: 9/19/16 10:38 PM

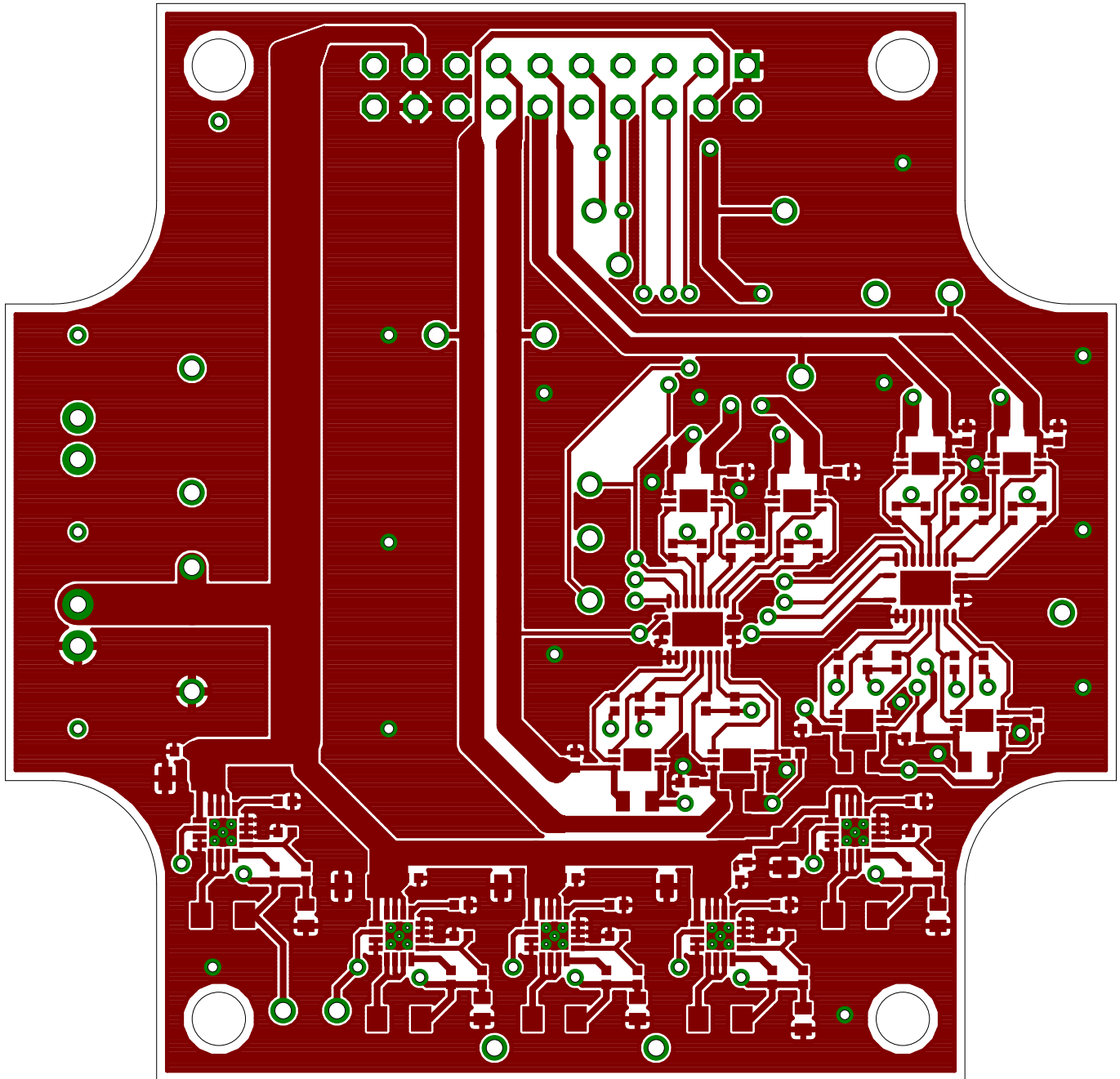
Sheet: 9/9



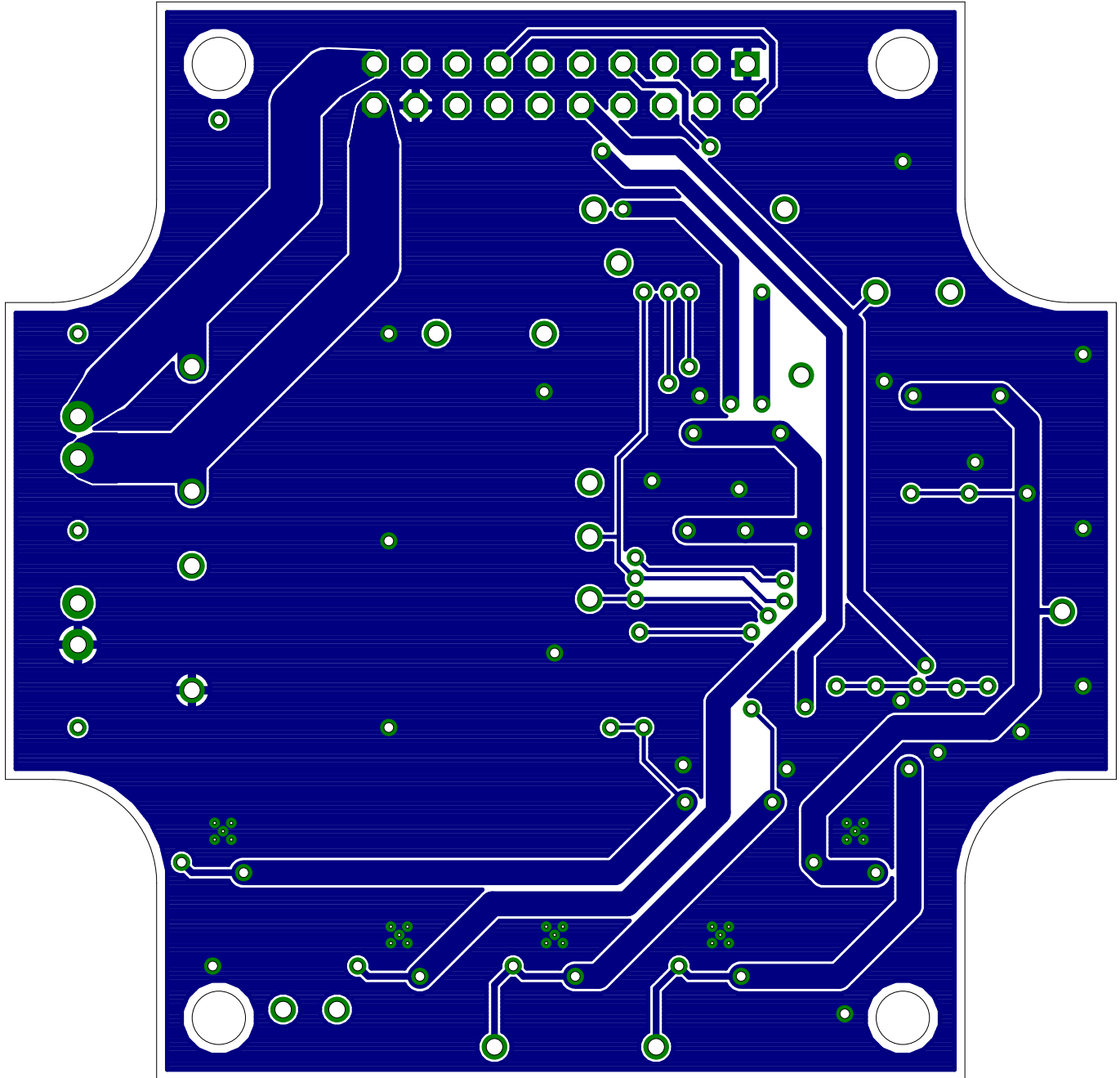


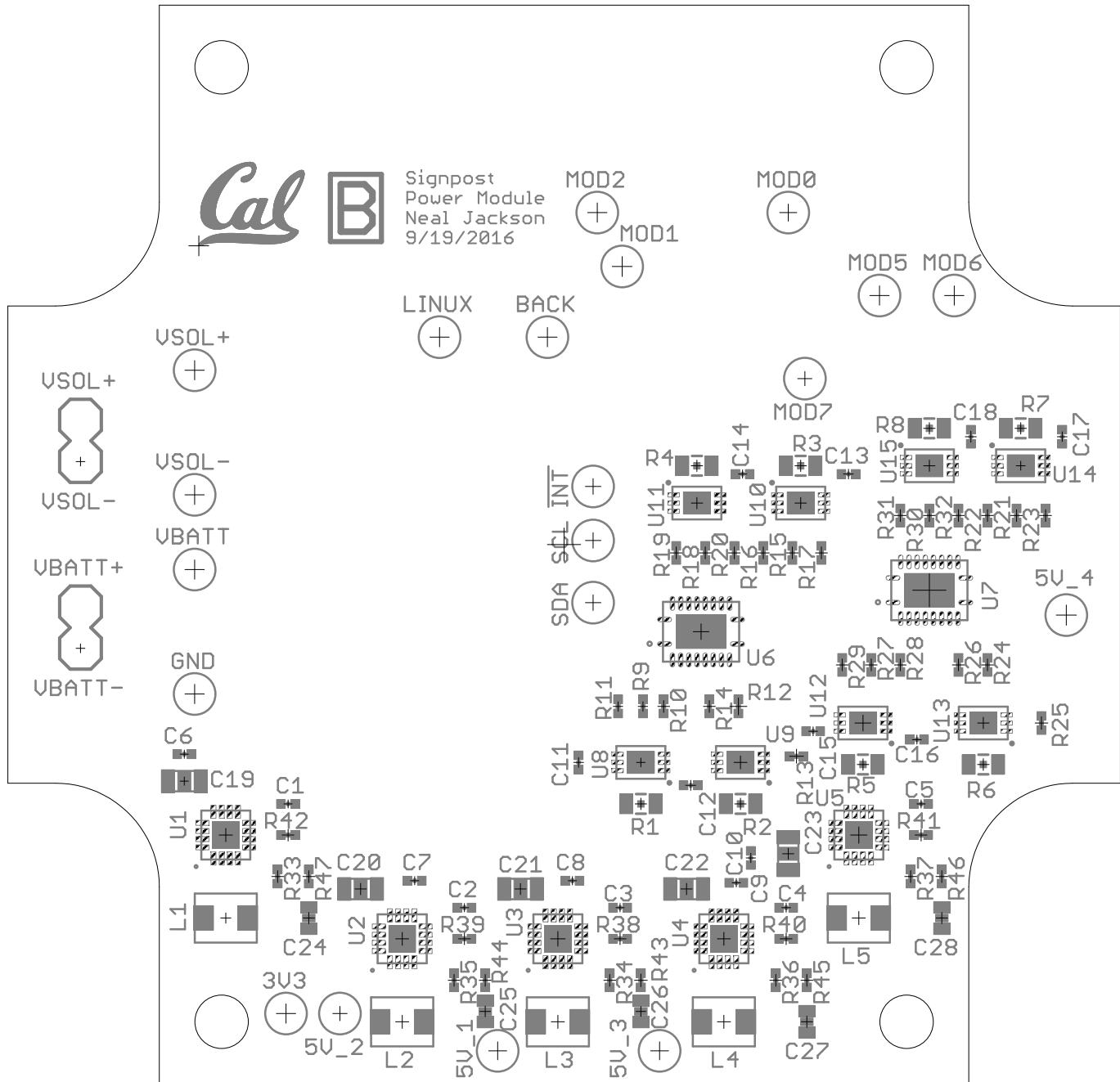
Bottom Layer



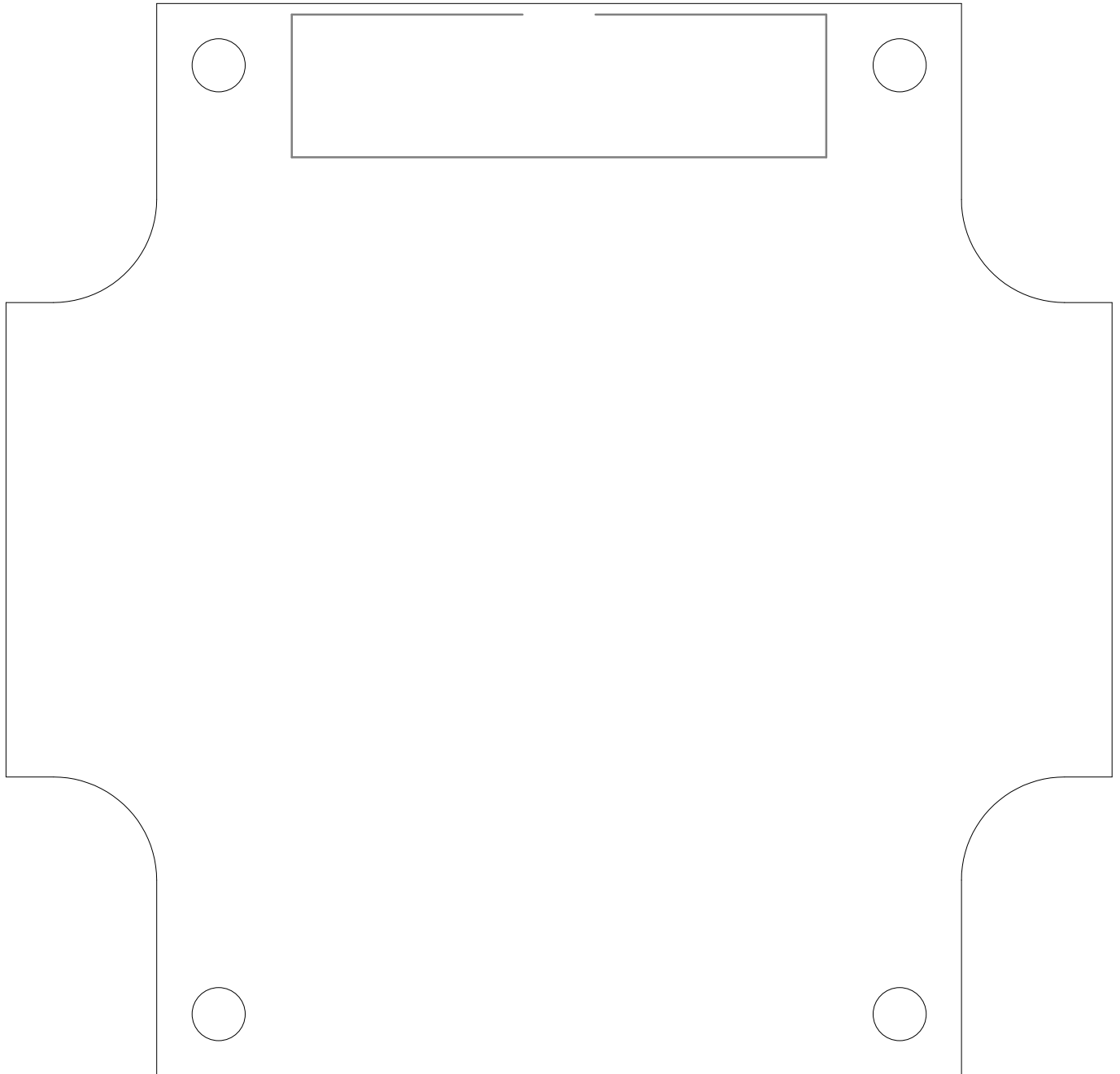


Bottom Copper Layer



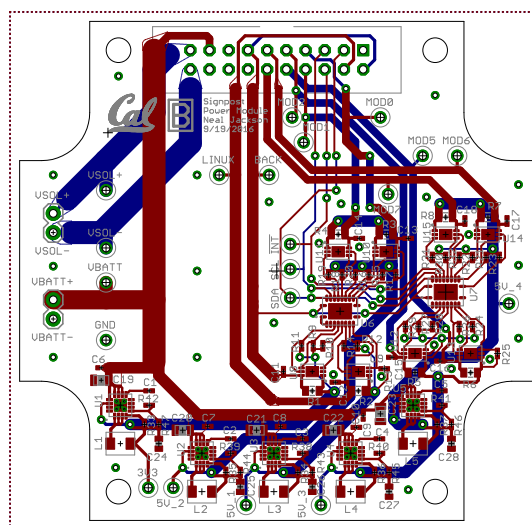


# Bottom Paste Layer with Silkscreen

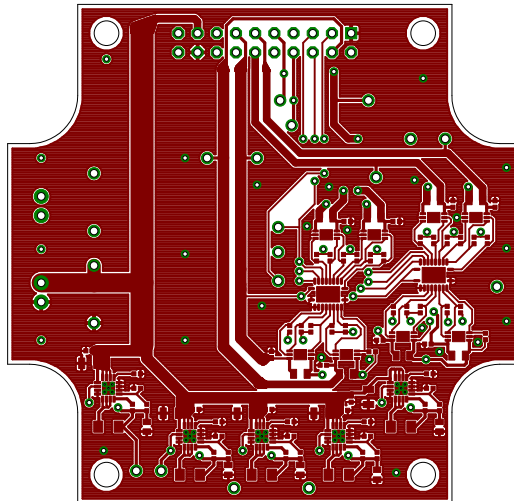




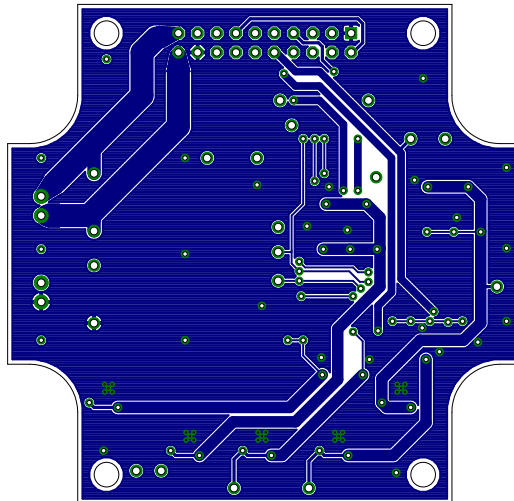
# Top and Bottom Layers 1:1 Scale



Top Layer 1:1 Scale



Bottom Copper Layer 1:1 Scale



# power\_supply\_module

Qty	Value	Device	Package
8	0.017 Ohm	RESISTOR0805_RES	0805_RES
24	10 kOhm	RESISTOR0402_RES	0402_RES
5	100 kOhm	RESISTOR0402_RES	0402_RES
4	130 kOhm	RESISTOR0402_RES	0402_RES
1	240 kOhm	RESISTOR0402_RES	0402_RES
4	680 kOhm	RESISTOR0402_RES	0402_RES
1	750 kOhm	RESISTOR0402_RES	0402_RES
5	3.3 nF	CAPACITOR0402_CAP	0402_CAP
13	0.1 uF	CAPACITOR0402_CAP	0402_CAP
5	10 uF	CAPACITOR0805_CAP	0805_CAP
4	22 uF	CAPACITOR0603_CAP	0603_CAP
5	2.2 uH	INDUCTOR0402	0402
8	LTC2941	LTC2941	DFN-6-2MMX3MM
1	MODULE_POWER	MODULE_POWER	MODULE_POWER
2	PCA9544AQFN-N20	PCA9544AQFN-N20	QFN-N20
20	TEST_POINT_0.040IN	TEST_POINT_0.040IN	TESTPOINT_0.040IN
5	TLV62130	TLV62130	TQFN-16/3MM

## 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, R24, R25, R2

R33, R34, R35, R36, R37

R38, R39, R40, R41

R42

R43, R44, R45, R46

R47

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

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

J1

U6, U7

!INT, 3V3, 5V\_1, 5V\_2, 5V\_3, 5V\_4, BACK, GND, LINUX, MOD0, MOD1, MOD2, MOD5, MO

U1, U2, U3, U4, U5

## power\_supply\_module

Description	DIGIKEY
Resistor	WSLPB-.017CT-ND
Resistor	P10KJCT-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
I2C Battery Gas Gauge	LTC2941IDCB#TRMPBFCT-ND
Header for power module for signpost	S9172-ND
1-4 I2C/SMBUS Multiplexer with interrupt for power	296-20960-1-ND
0.040in Test Point	5001K-ND
High Efficient 3A switching step-down regulator. 1V-	296-35978-1-ND