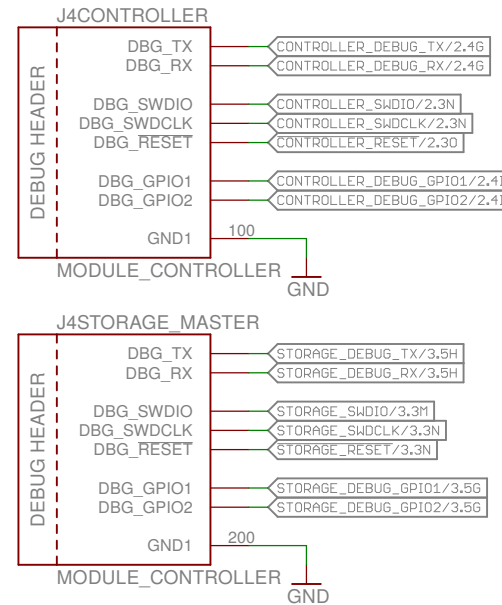
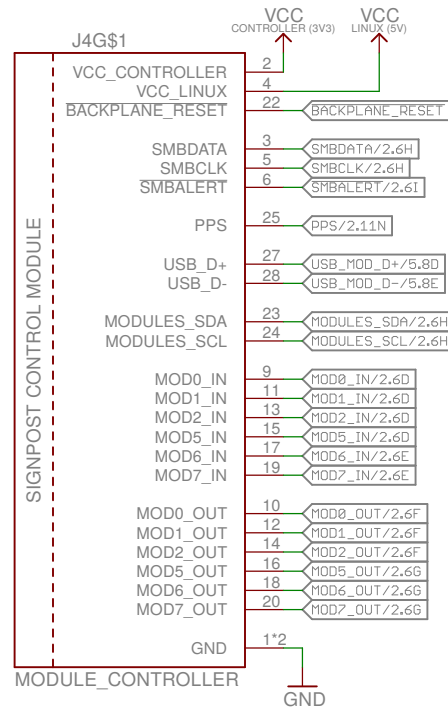
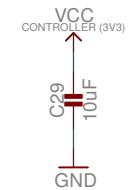


Headers

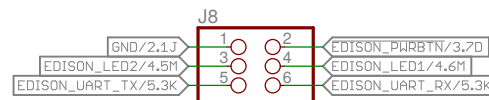
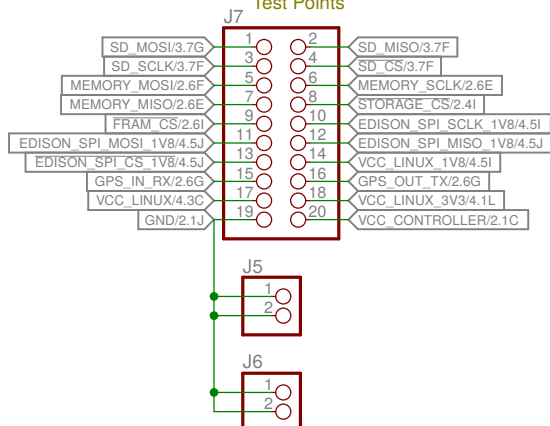
Signpost Headers



Main Decoupling Capacitor



Test Points



Backplane Reset Button



Signpost Control Module

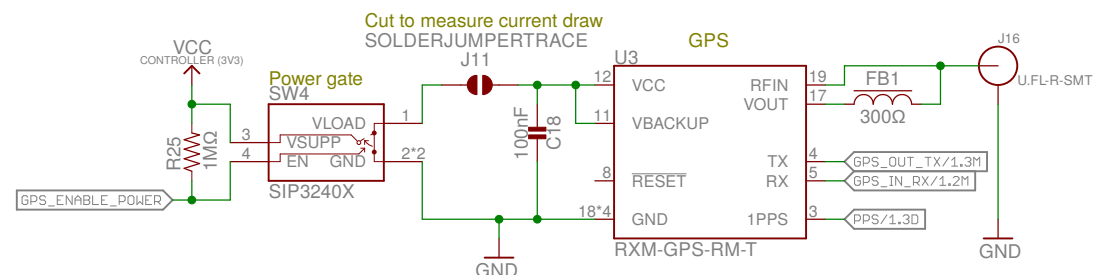
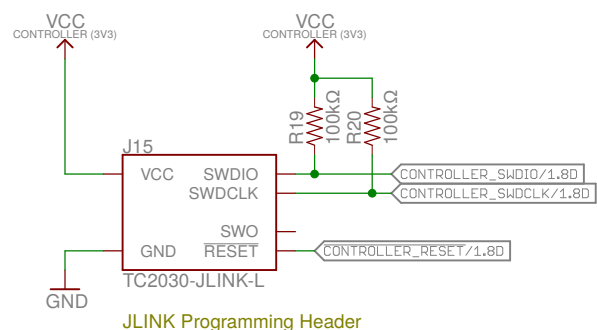
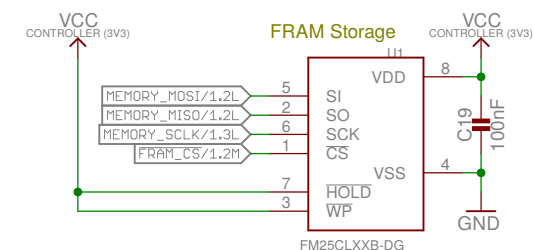
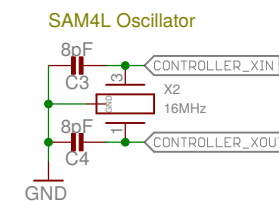
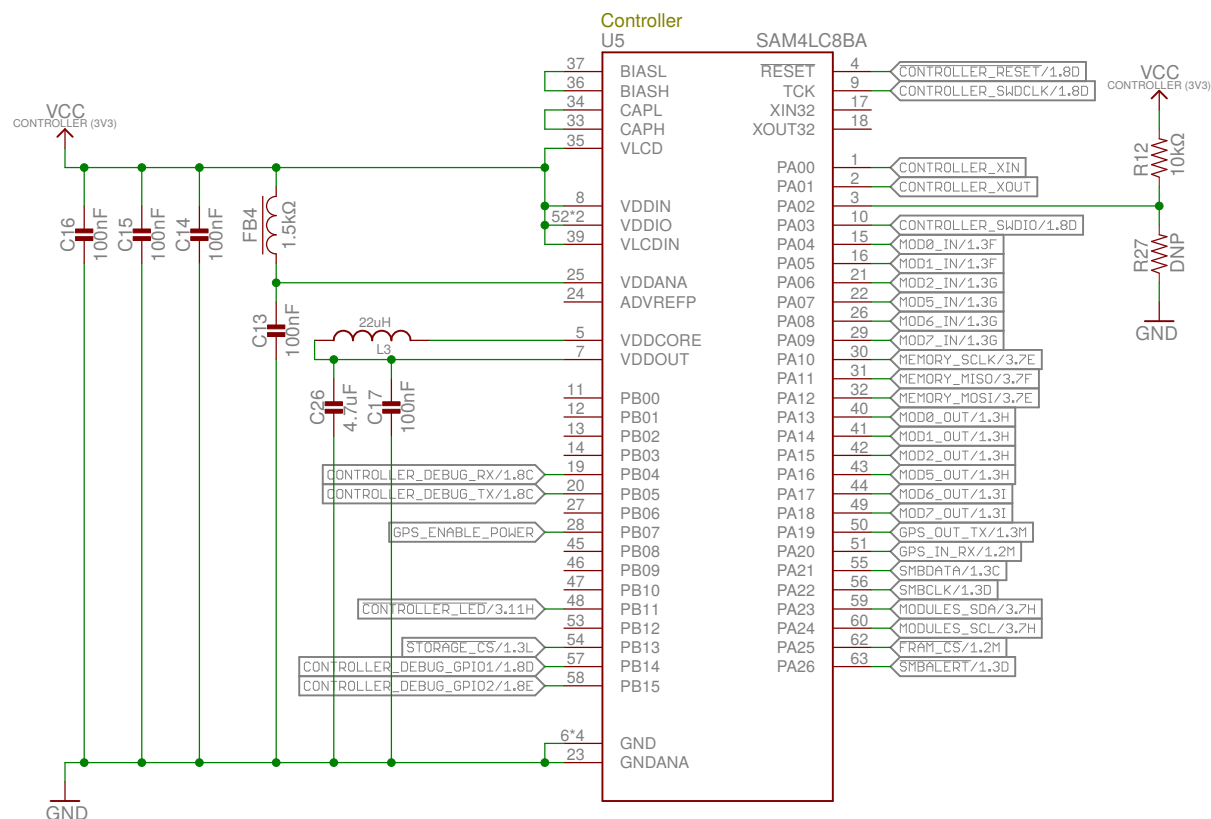
REV:
B

Author: Branden Ghena

Date: 1/22/17 4:20 AM

Sheet: 1/5

Controller



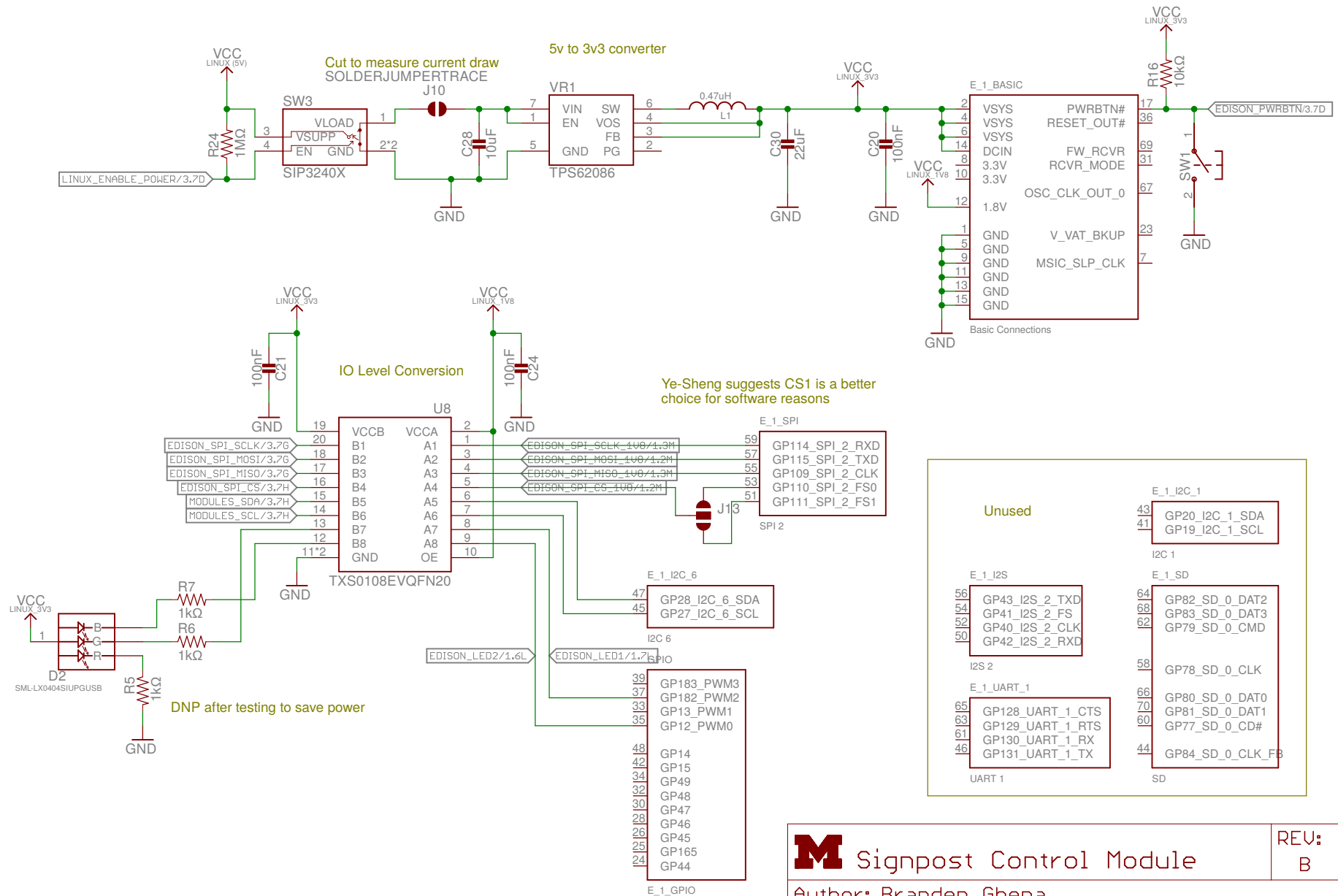
SAM4L Oscillator



Author: Branden Ghena

Sheet: 3/5

Edison



M Signpost Control Module

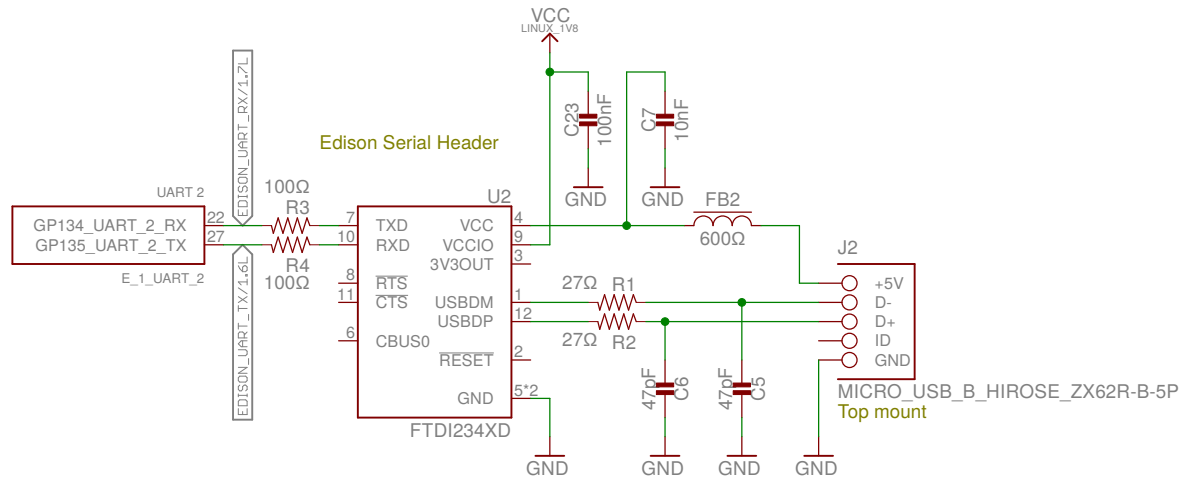
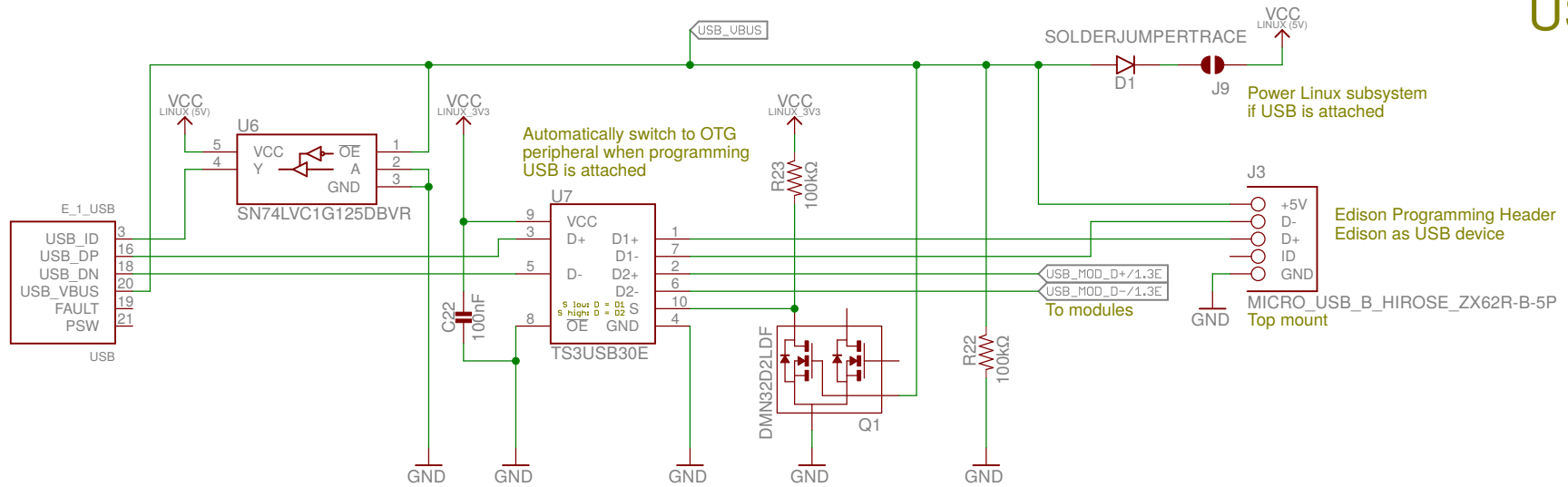
Author: Branden Ghena

Date: 1/22/17 4:20 AM

REV:
B

Sheet: 4/5

USB



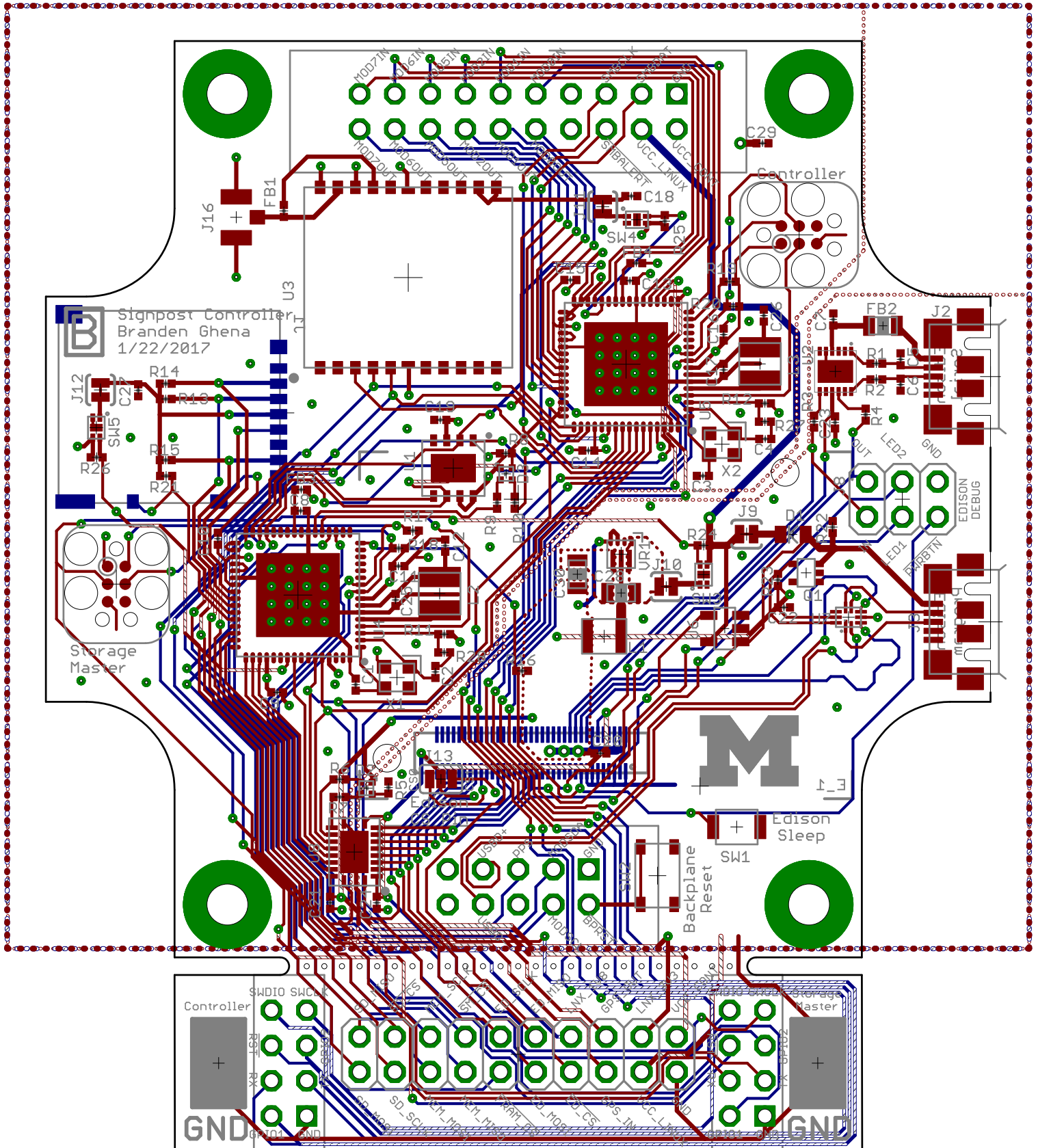
M Signpost Control Module

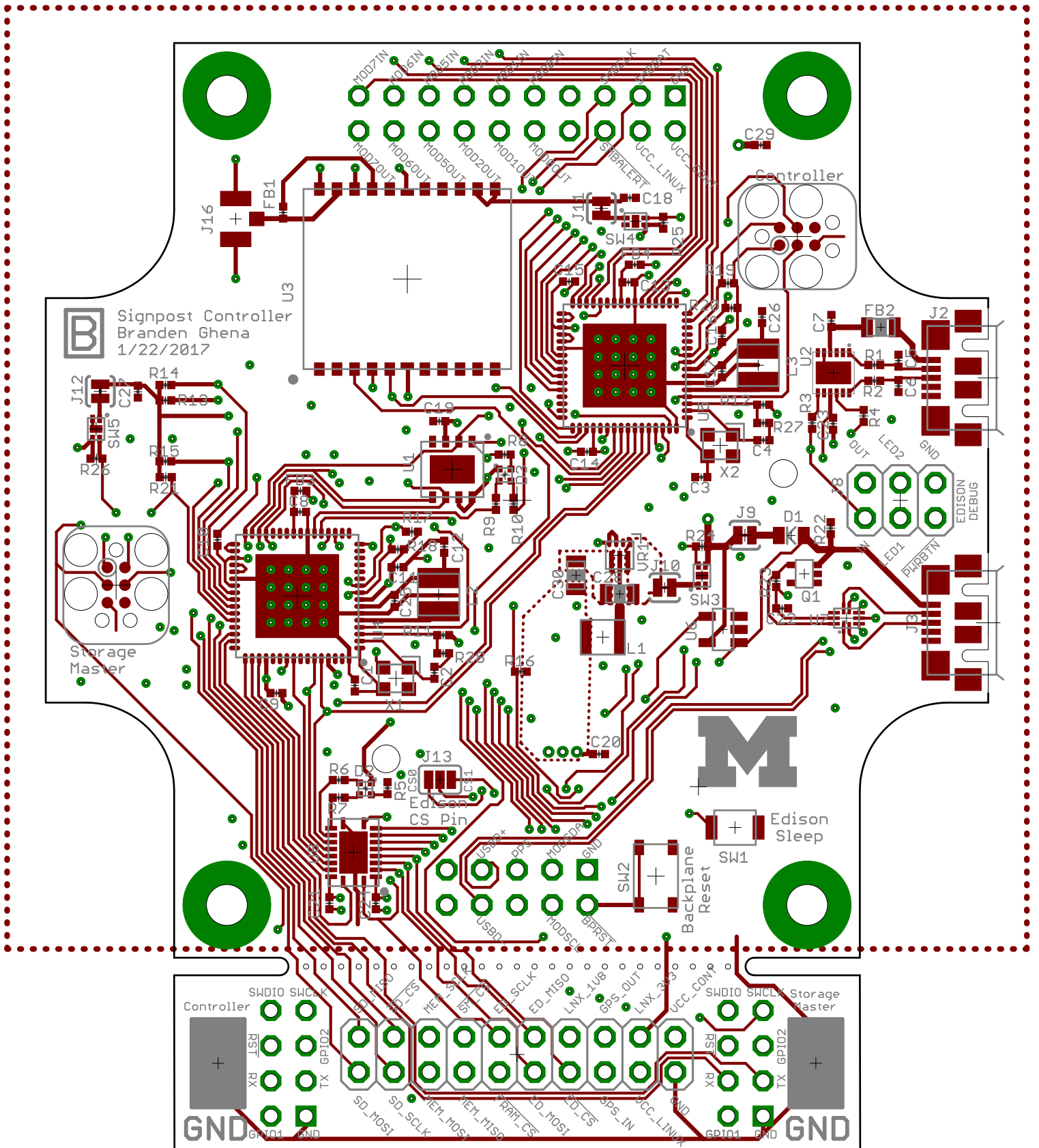
REV:
B

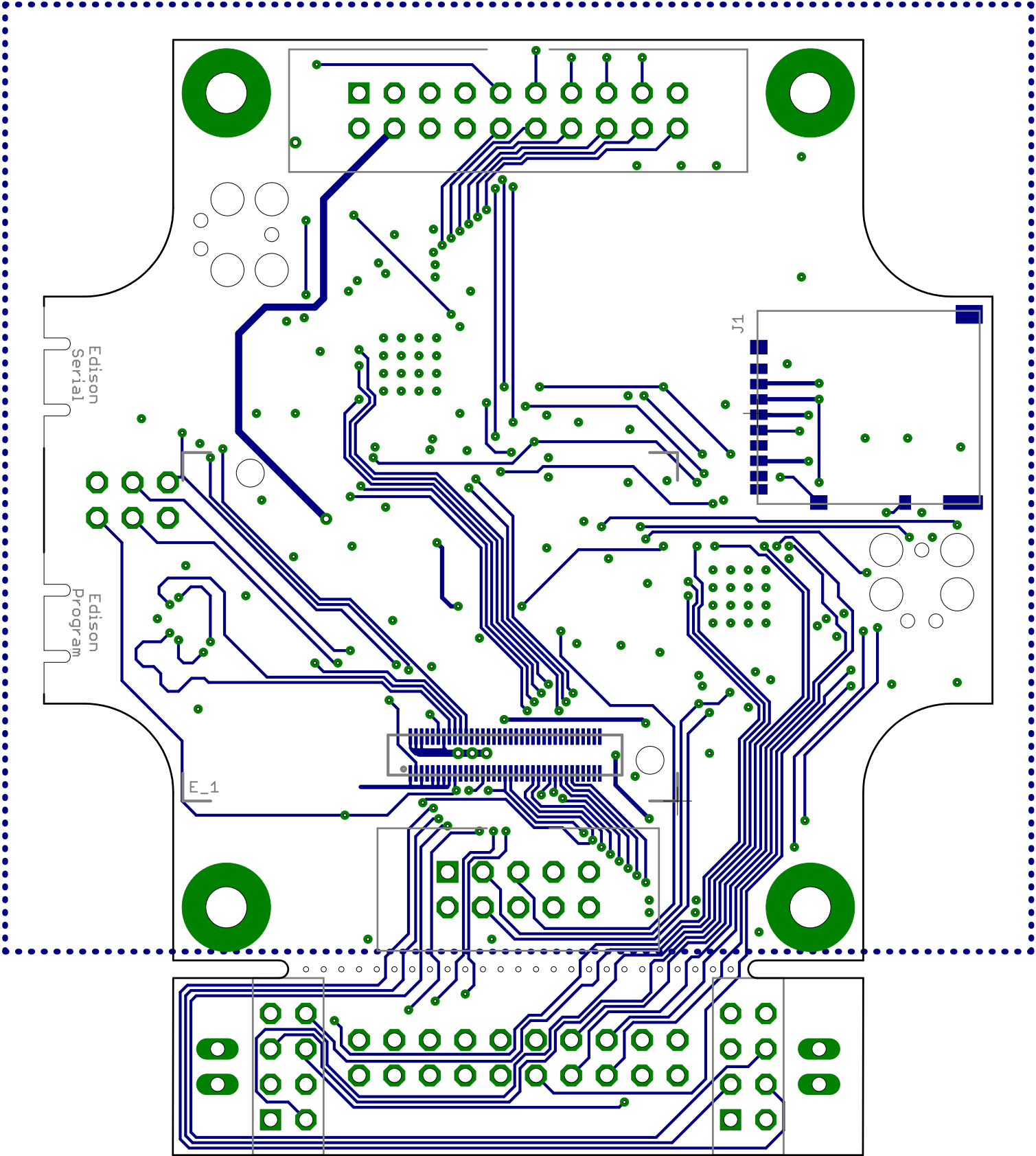
Author: Branden Ghena

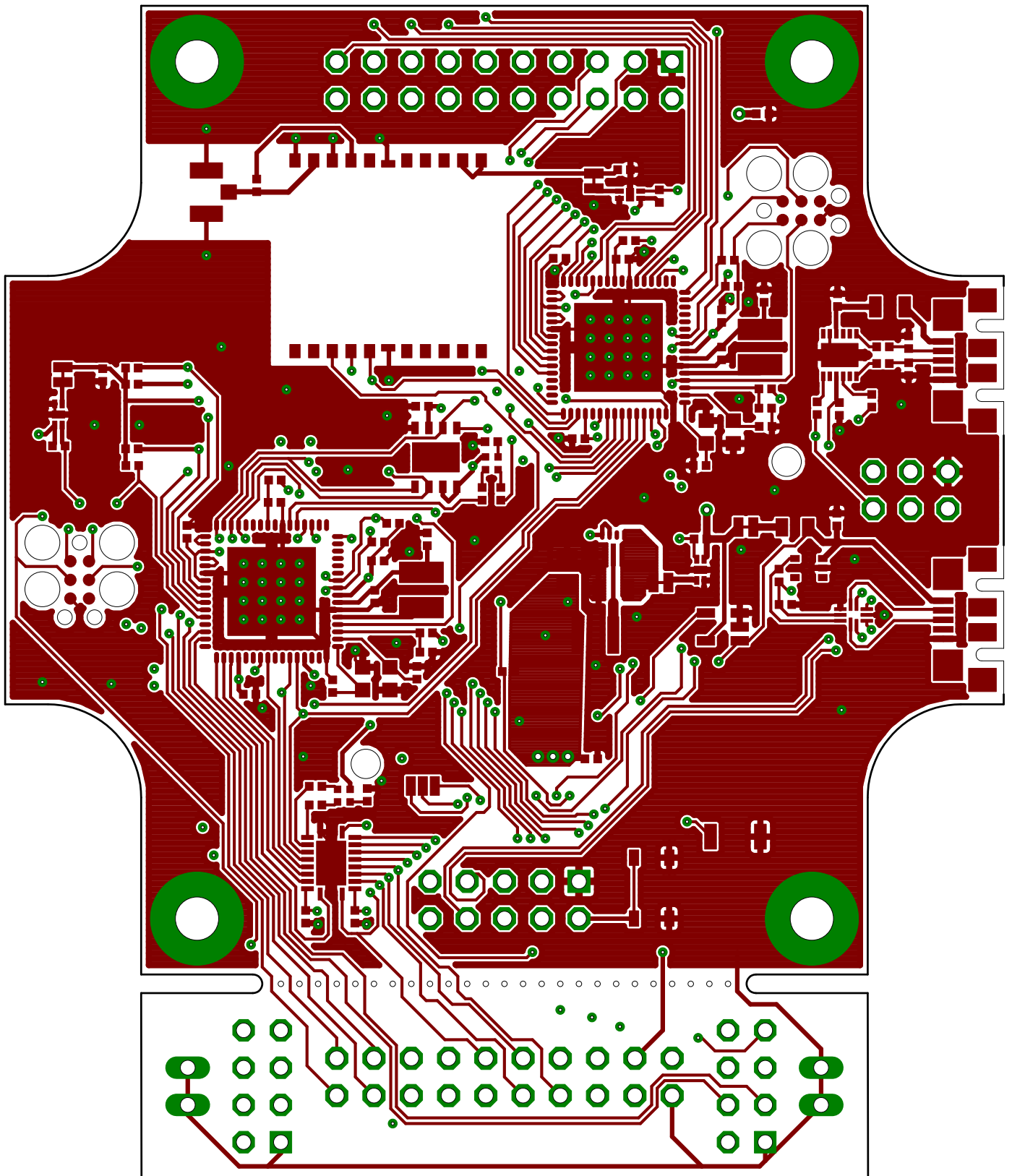
Date: 1/22/17 4:20 AM

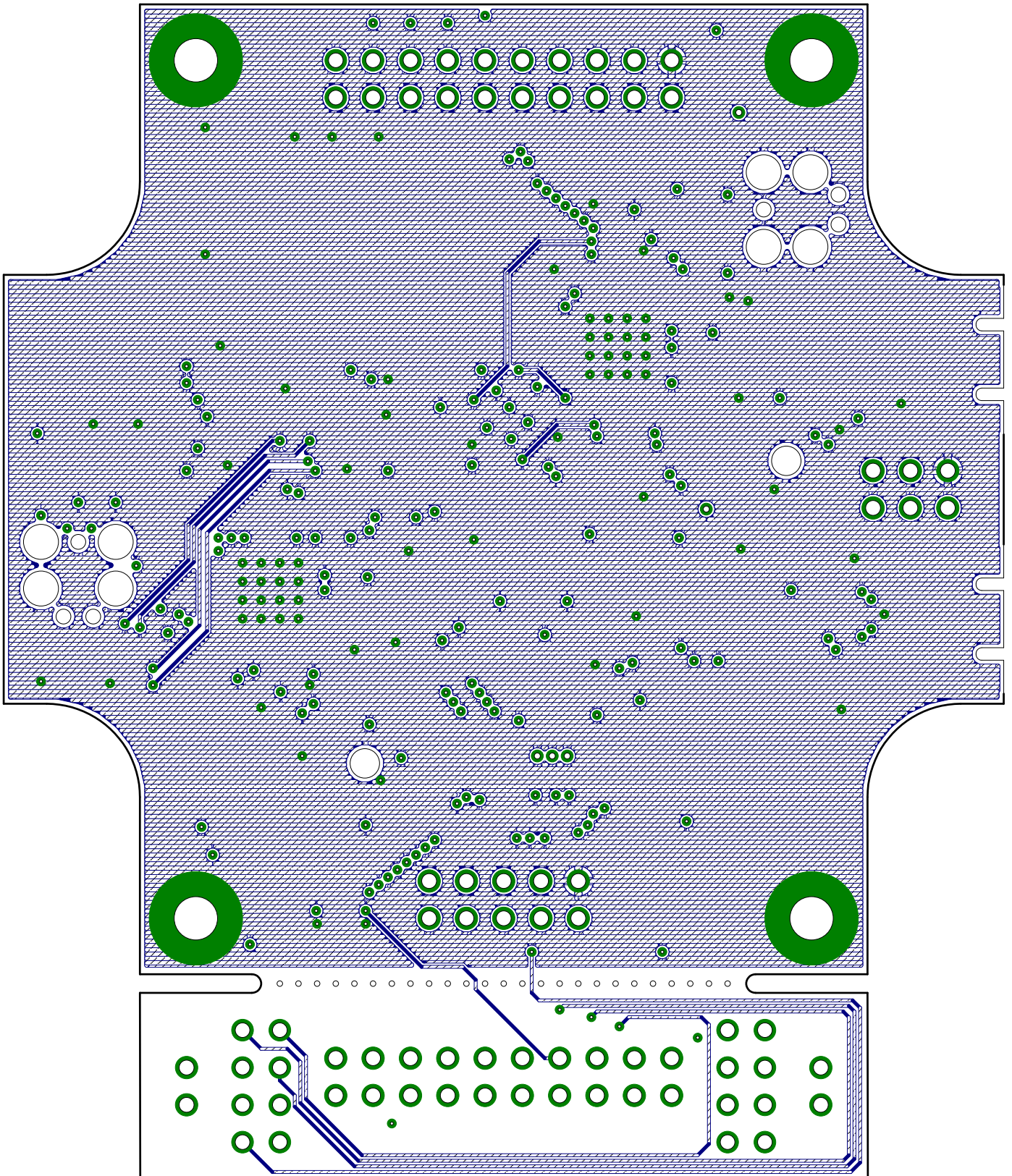
Sheet: 5/5

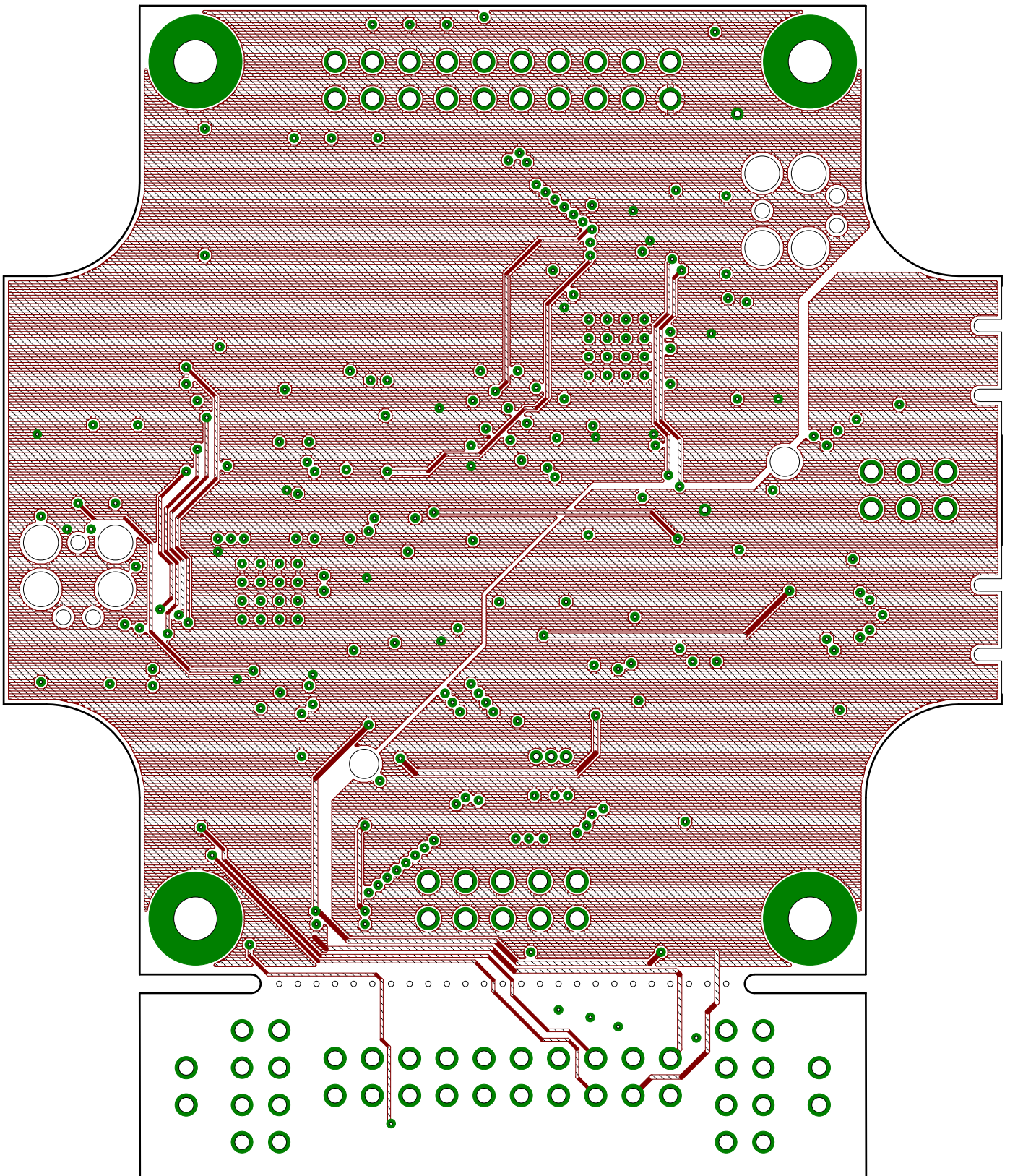




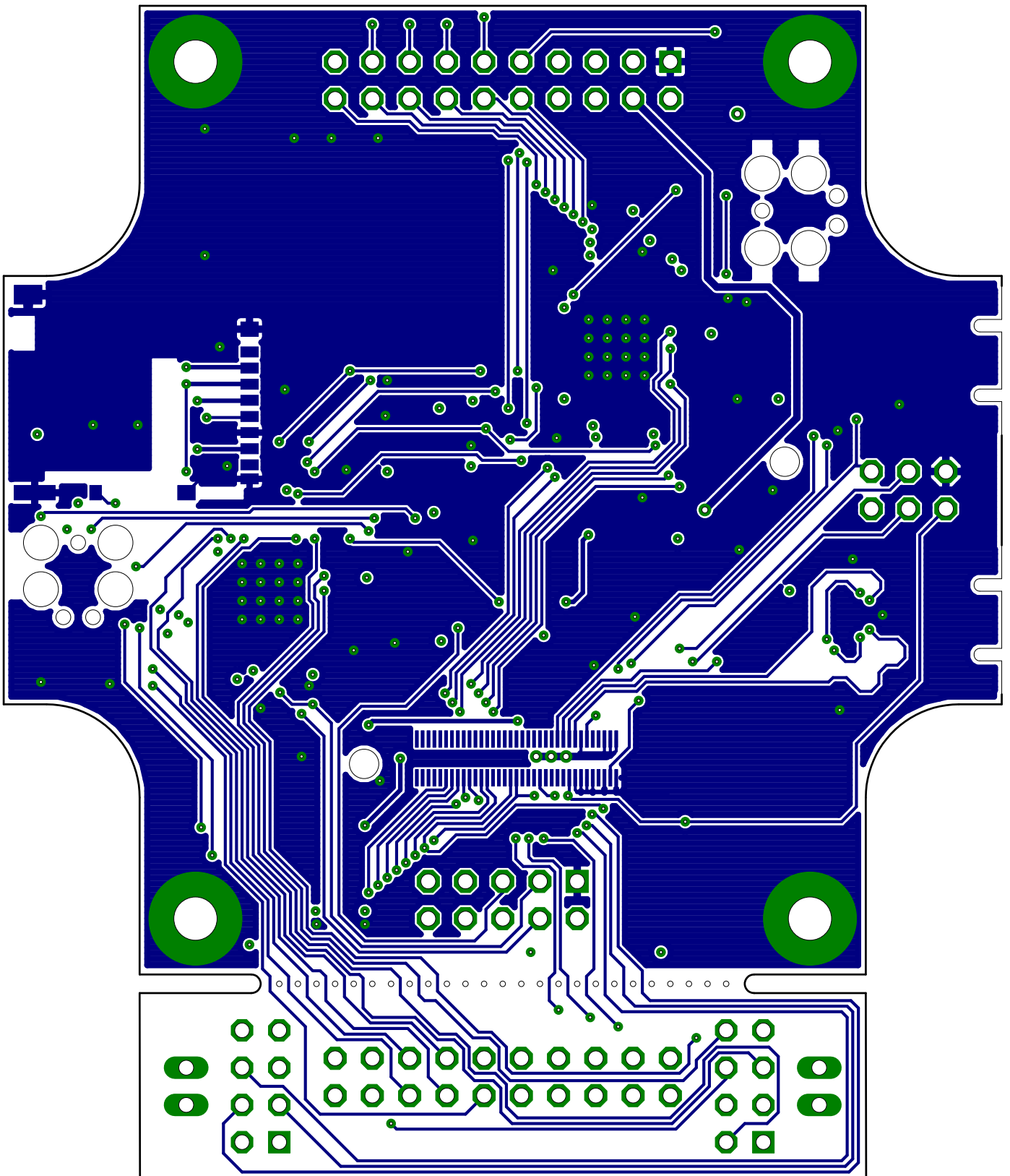




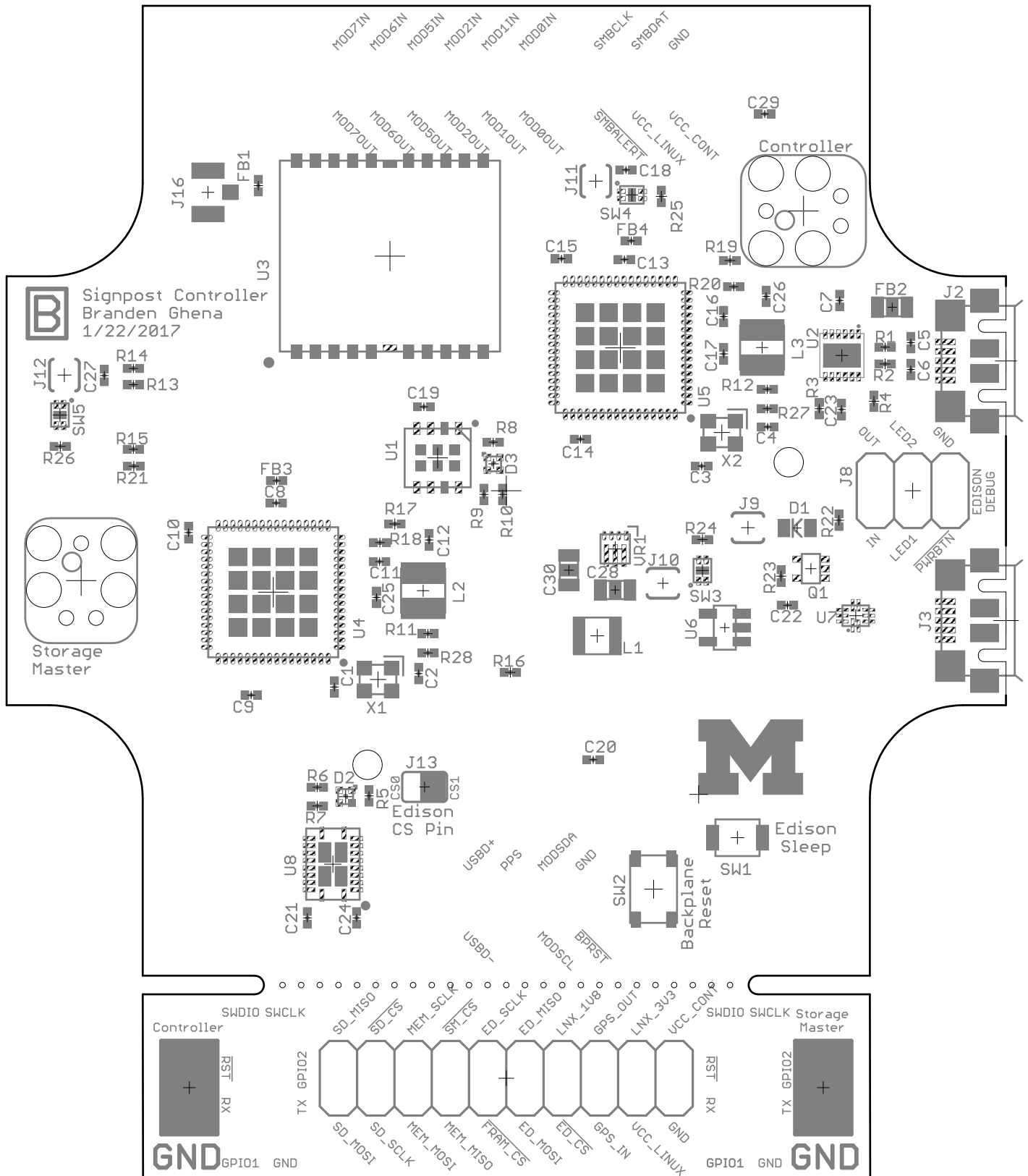




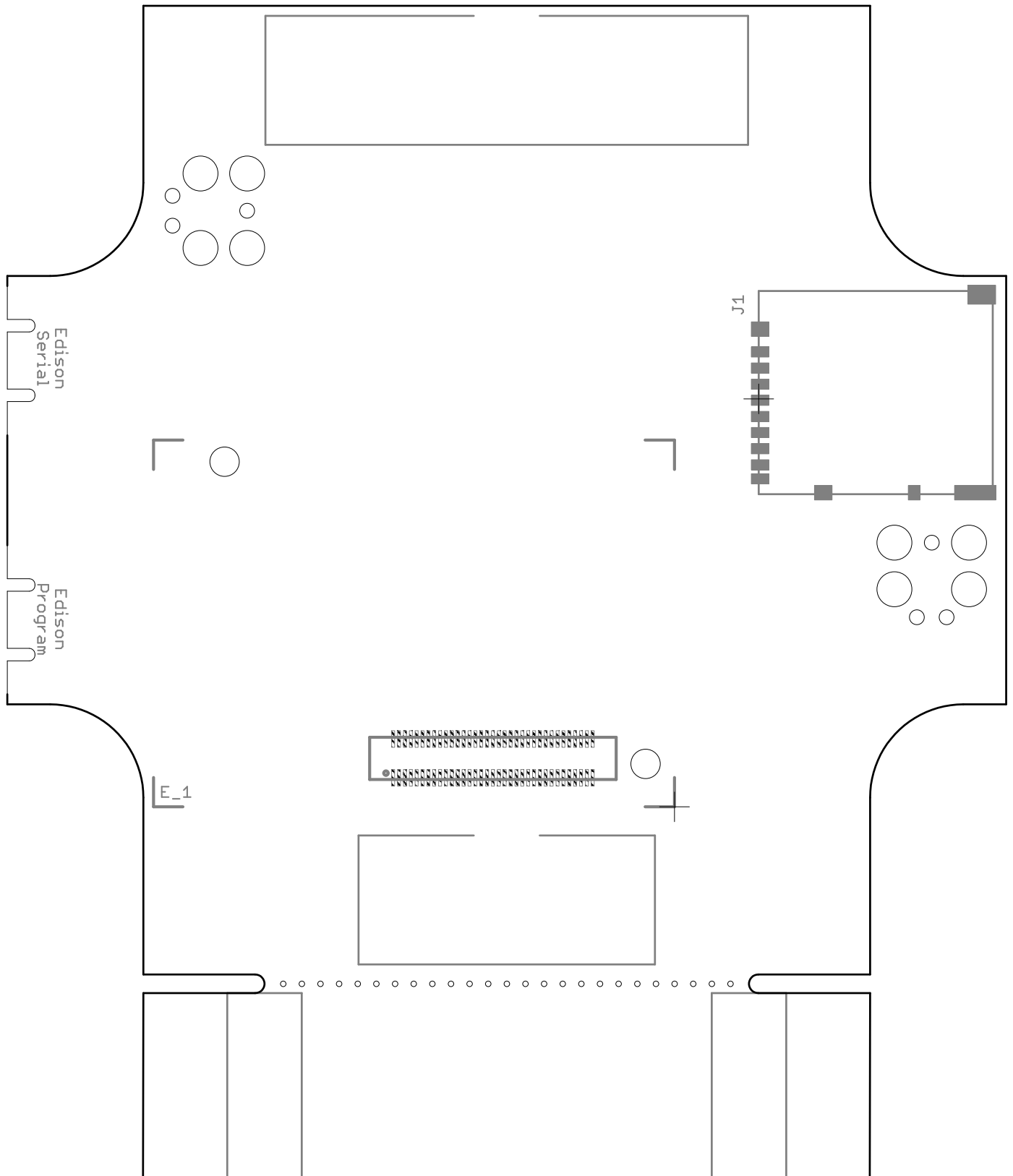
Bottom Copper Layer



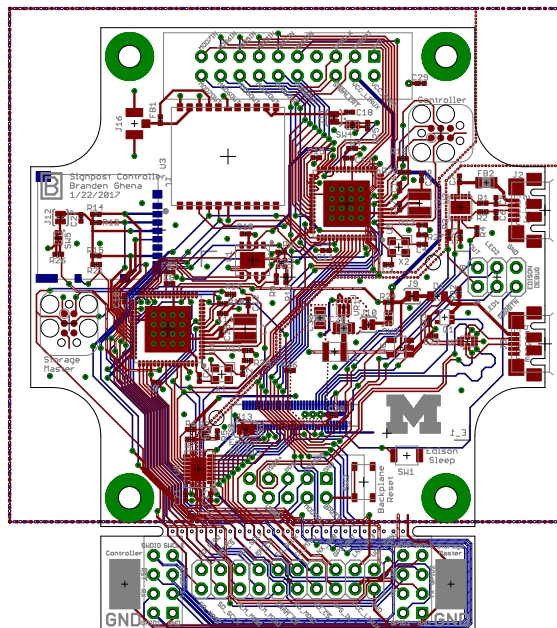
Top Paste Layer with Silkscreen

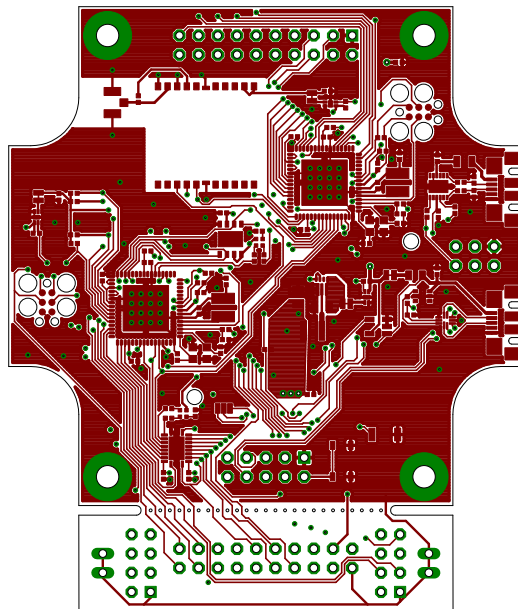


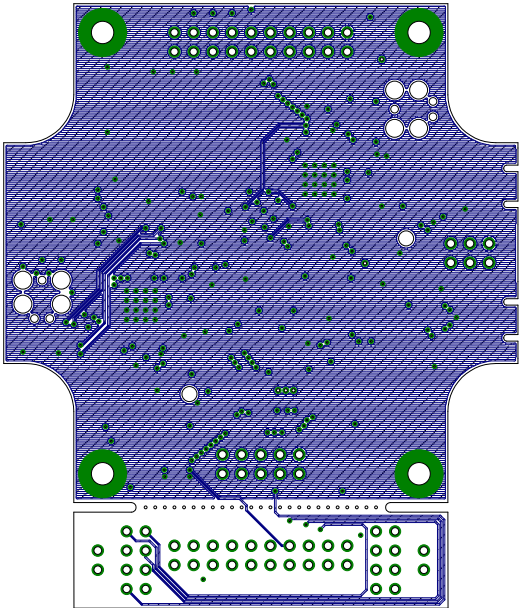
Bottom Paste Layer with Silkscreen



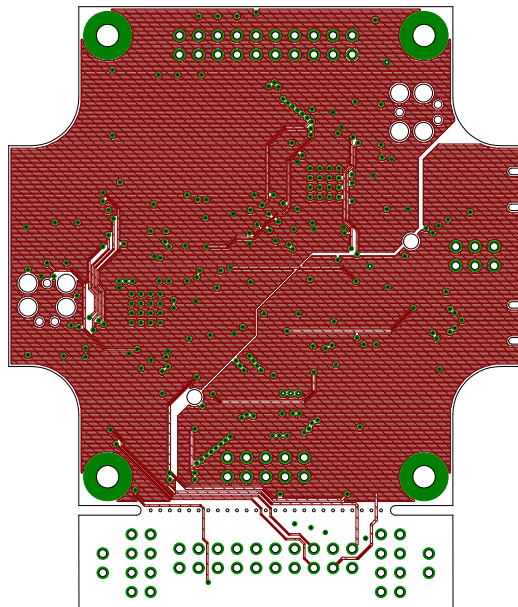
Top and Bottom Layers 1:1 Scale



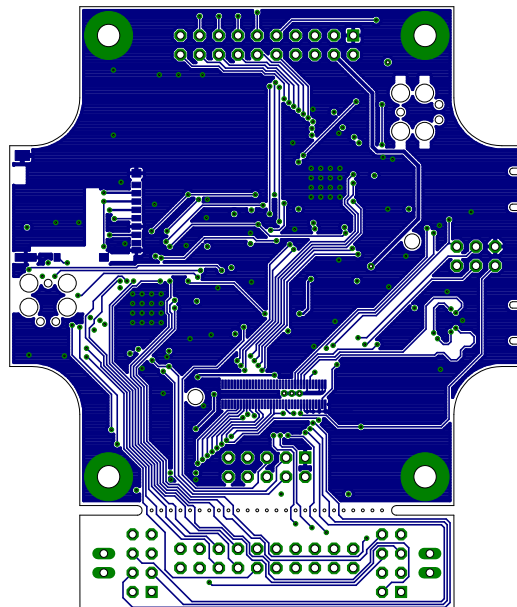




Layer 3 Copper 1:1 Scale



Bottom Copper Layer 1:1 Scale



controller_bom

Qty	Value	Device
4	8pF	CAPACITOR0402_CAP
2	47pF	CAPACITOR0402_CAP
1	10nF	CAPACITOR0402_CAP
17	100nF	CAPACITOR0402_CAP
3	4.7uF	CAPACITOR0402_CAP
1	10uF	CAPACITOR0805_CAP
1	10uF	CAPACITOR0402_CAP
1	22uF	CAPACITOR0805_CAP
1	DIODE	DIODE
2	SML-LX0404SIUPGUSB	SML-LX0404SIUPGUSB
1	EDISON_CONNECTOR_SEGMENTED	EDISON_CONNECTOR_SEGMENTED
1		300 FERRITE_BEAD0402
1		600 FERRITE_BEAD0805
1	1.5k	FERRITE_BEAD0402
1	1.5k	FERRITE_BEAD0402
1	DM3AT-SF-PEJM5	DM3AT-SF-PEJM5
2	MICRO_USB_B_HIROSE_ZX62R-B-5P	MICRO_USB_B_HIROSE_ZX62R-B-5P
1	MODULE_CONTROLLER	MODULE_CONTROLLER
2		PINHD-1X2
1		PINHD-2X10
1		PINHD-2X3
4	SOLDERJUMPERTRACE	SOLDERJUMPERTRACE
1		SOLDERJUMPER_2WAYPASTE2&3
2	TC2030-JLINK-L	TC2030-JLINK-L
1	U.FL-R-SMT	U.FL-R-SMT
1	0.47uH	INDUCTORDFE322512C
1	22uH	LHQ3NP
1	22uH	LHQ3NP
1	UMICH_SOLID_MEDIUM	UMICH_SOLID_MEDIUM
1	DMN32D2LDF	DMN32D2LDF
2		27 RESISTOR0402_RES
2		100 RESISTOR0402_RES
6	1k	RESISTOR0402_RES
6	10k	RESISTOR0402_RES
5	100k	RESISTOR0402_RES
2	100k	RESISTOR0402_RES
3	1M	RESISTOR0402_RES
2	DNP	RESISTOR0402_RES
1	B3U-1000P	B3U-1000P
1	PTS810SJ	PTS810SJ
3	SIP3240X	SIP3240X
1	FM25CLXXB-DG	FM25CLXXB-DG
1	FTDI234XD	FTDI234XD
1	RXM-GPS-RM-T	RXM-GPS-RM-T
2	SAM4LC8BA	SAM4LC8BA
1	SN74LVC1G125DBVR	SN74LVC1G125DBVR
1	TS3USB30E	TS3USB30E
1	TXS0108EVQFN20	TXS0108EVQFN20

controller_bom

1 TPS62086
2 16MHz

TPS62086
FH1600015

controller_bom

Package
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0402_CAP
0805_CAP
0402_CAP
0805_CAP
0805_DIODE
1MM_SQ_4PAD
EDISON_DAUGHTER
0402_CAP
0805_CAP
0402_CAP
0402_CAP
DM3AT-SF-PEJM5
USB_MICRO_B-HIROSE-ZX62R-B-5P
MODULE_CONTROLLER
1X02
2X10
2X03
SJ_2S-TRACE
SJ_3_PASTE2&3
TC2030-IDC
U.FL_SMT
DFE322512C

1212
1212

UMICH_SOLID_200MIL
SOT353
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES
0402_RES
B3U-1000P
PTS810SJ
TDFN4
TDFN-8
DFN-12/3MM
RXM-GPS-RM-T
QFN-64-9MM
SOT-23-5
UQFN-10
R-PVQFN-N20

controller_bom

RLT0007A
FHXXX

controller_bom

Parts

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

C29

C30

D1

D2, D3

E_1

FB1

FB2

FB3

FB4

J1

J2, J3

J4

J5, J6

J7

J8

J9, J10, J11, J12

J13

J14, J15

J16

L1

L2

L3

LOGO1

Q1

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, R26

R27, R28

SW1

SW2

SW3, SW4, SW5

U1

U2

U3

U4, U5

U6

U7

U8

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VR1
X1, X2

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Description	AMAZON
0402 Capacitor	
0402 Capacitor	
0402 Capacitor	
0402 Capacitor	
0402 Capacitor	
0402 Capacitor	
0402 Capacitor	
0402 Capacitor	
1mm^2 RGB LED	B00PTVSS4A
CONN MICRO SD R/A PUSH-PUSH SMD	
USB Micro B Connector	
Controller module for signpost	
PIN HEADER	
PIN HEADER	
PIN HEADER	
Solder Jumper	
Solder Jumper	
U.FL-R-SMT Antenna Connector	
A very specific inductor	
LHQ3NP Inductor	
LHQ3NP Inductor	
Common source dual n-channel mosfet	
Resistor	
Resistor	
Resistor	
Resistor	
Resistor	
Resistor	
Resistor	
Resistor	
Switch	
PTS810SJ Push Button Switch	
High power (2.4 A) high-side switch	
Cypress FRAM	
FTDI234XD USB to UART Bridge in 3x3 DFN Package	
The RM Series GPS receiver module is a	
SAM4L Microcontroller. 64QFN Package. 512 Flash.	
Single Bus Buffer Gate with 3-state output	
USB Mux with OE control and ESD	
TXS0108E 8-Bit Bi-directional Voltage Translator	

controller_bom

Buck Switching Regulator IC Positive Fixed 3.3V 1 Output 3A 7-VFDFN
Pericom Type FH 16 MHz 2.5 x 2.0 mm

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DIGIKEY	MOUSER	NEWARK
490-8230-1-ND		
490-6241-1-ND		
490-6296-1-ND		
490-10777-1-ND		
490-13252-1-ND		
490-8316-1-ND		
490-13811-1-ND		
490-1719-1-ND		
478-7800-1-ND		
67-2125-1-ND		
	798-DF40HC3070DS4V51	
ACML-0402-301-TCT-ND		
240-2390-1-ND		
490-5216-1-ND		
1276-6395-1-ND		
HR1964CT-ND		
H125274CT-ND		
S9172-ND , S9169-ND , S2221EC-04-ND , S2221EC-04-ND		
H122041-ND		
490-10596-1-ND	81-1277AS-H-R47MP2	
1276-6395-1-ND		
490-5350-1-ND		
DMN32D2LDF-7DICT-ND		
1276-3907-1-ND		
1276-3429-1-ND		
1276-3430-1-ND		
1276-3431-1-ND		
1276-3432-1-ND		
1276-3429-1-ND		
1276-3433-1-ND		
1276-3431-1-ND		
SW1020CT-ND		
CKN10504CT-ND		
SIP32402ADNP-T1GE4CT-ND		
FM25CL64B-DGRA-ND		
768-1178-1-ND	895-FT234XD-R	53X3171
RXM-GPS-RM-TCT-ND		
ATSAM4LC8BA-MURCT-ND		
296-11603-1-nd		
296-24684-1-ND		
296-24806-1-ND		

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296-40831-1-ND
FH1600015CT-ND