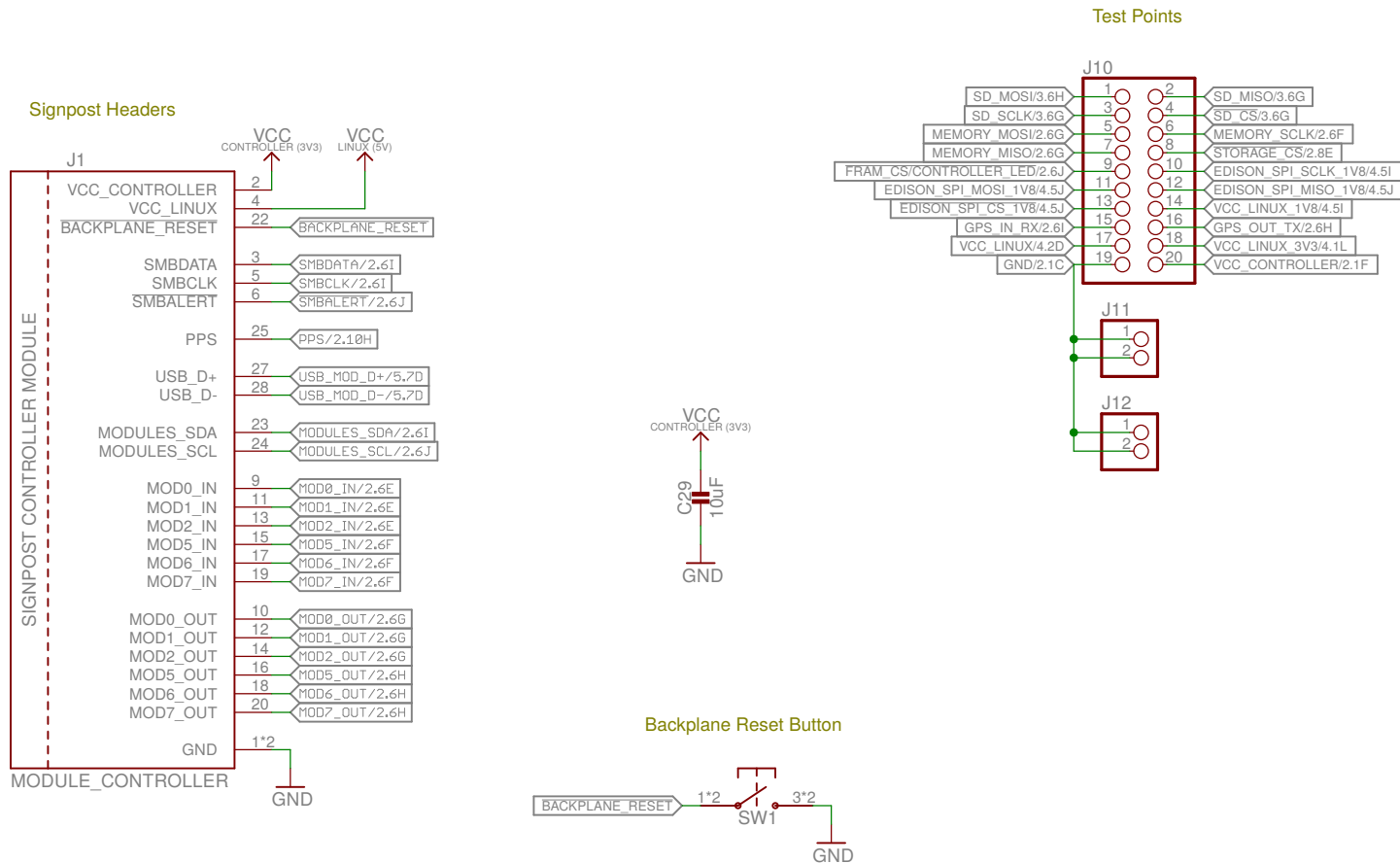


# Headers



**M** Signpost Controller

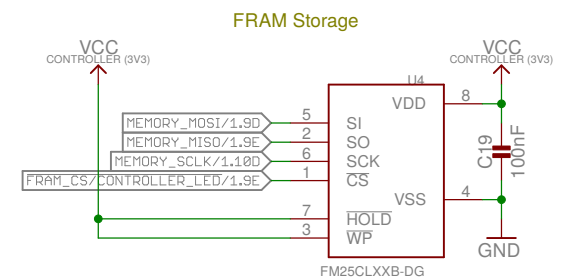
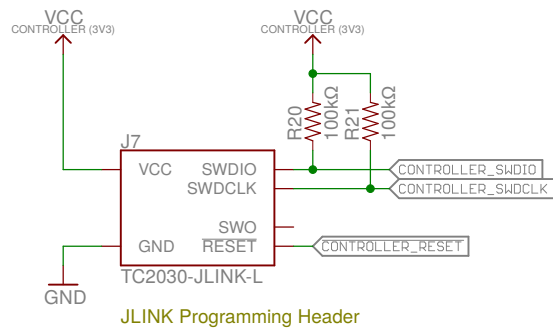
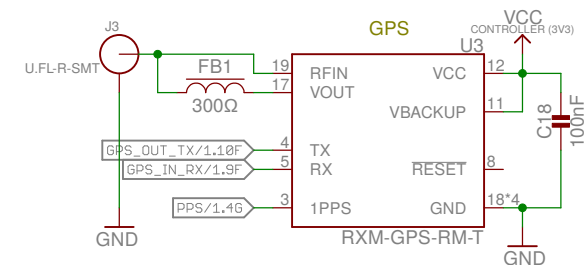
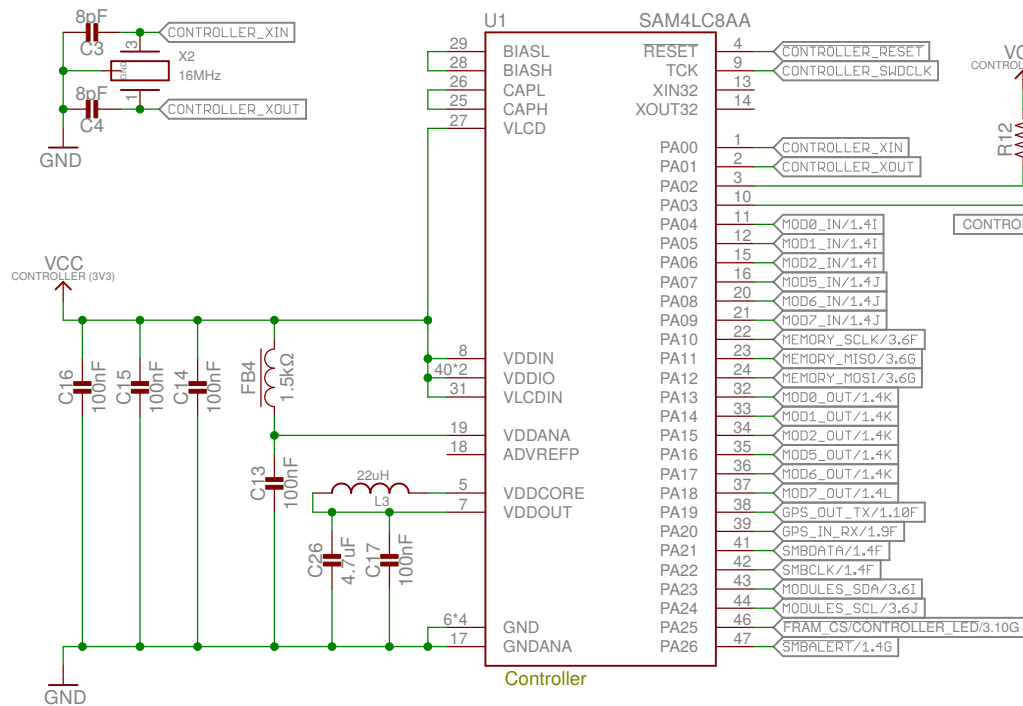
REV:  
A

Author: Branden Ghena

Date: 9/15/16 2:13 AM

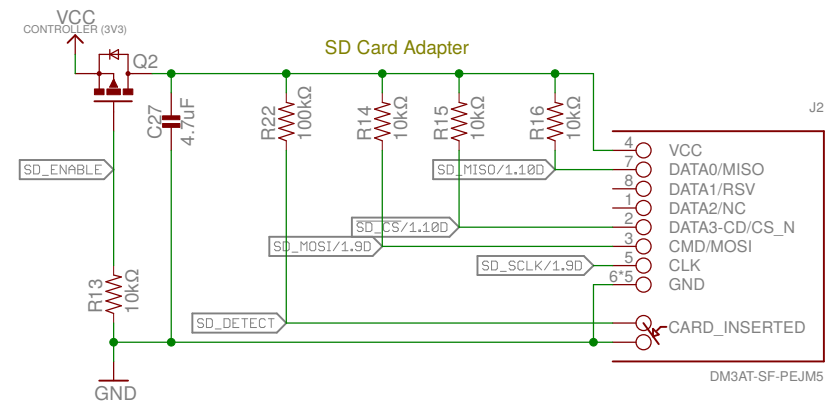
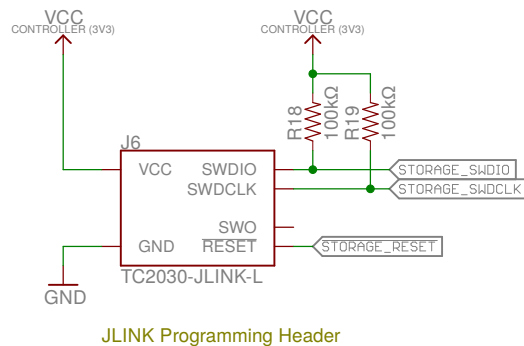
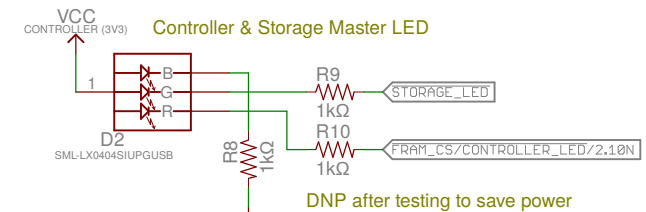
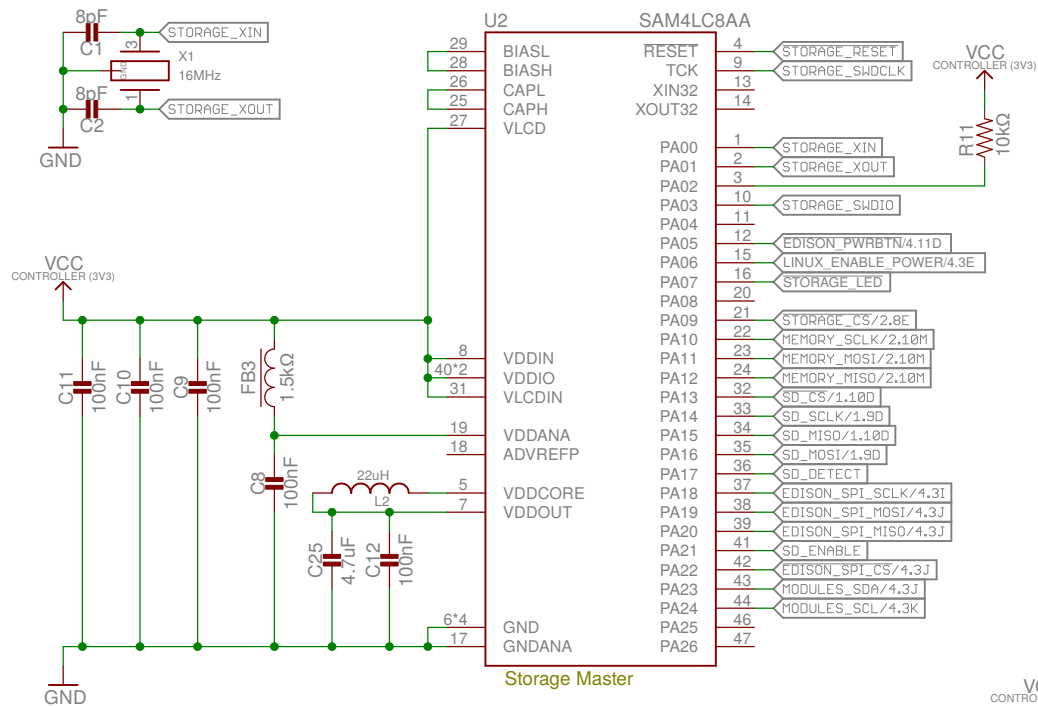
Sheet: 1/5

# Controller

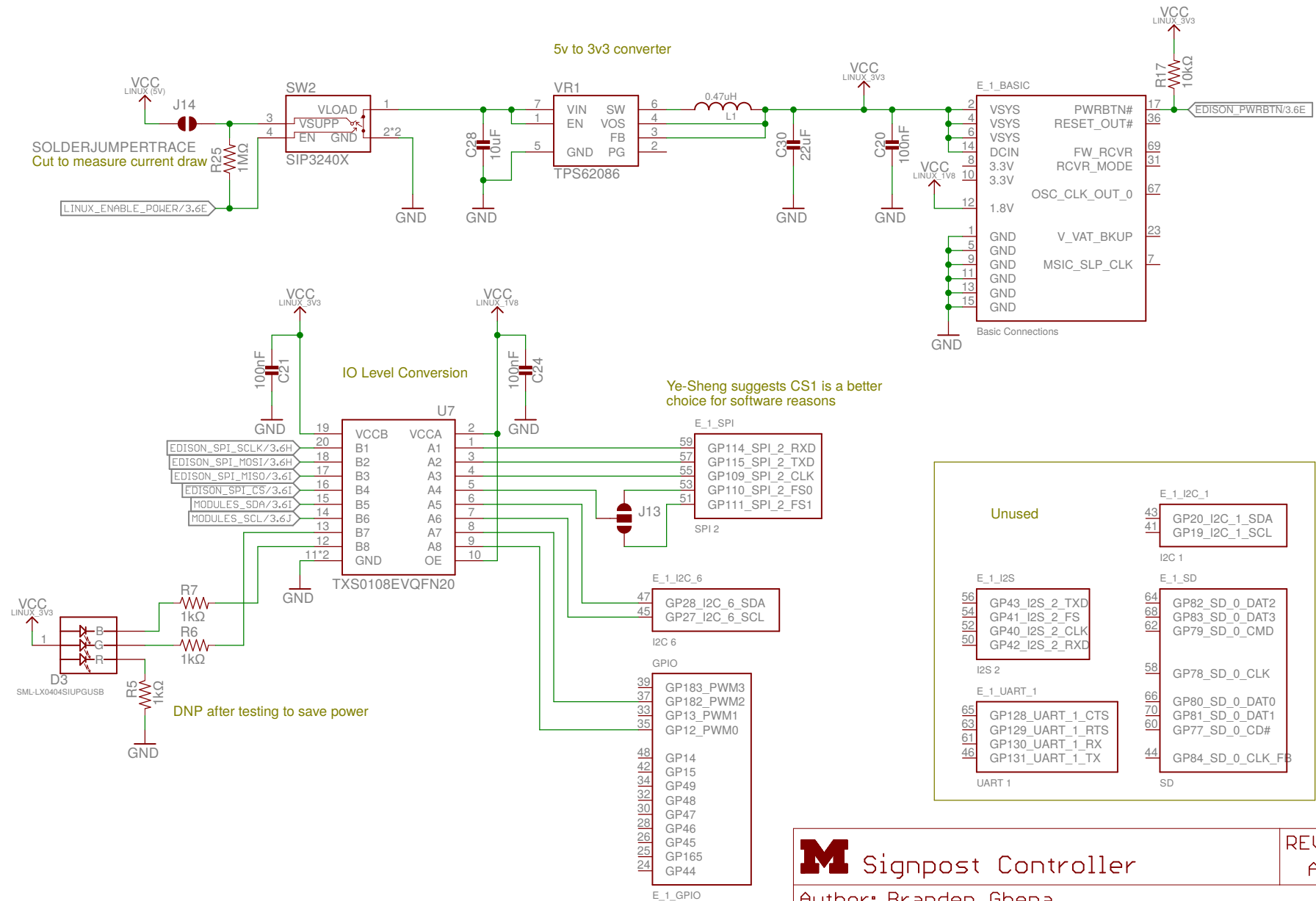


<b>M</b> Signpost Controller	REV: A
Author: Branden Ghena	
Date: 9/15/16 2:13 AM	Sheet: 2/5

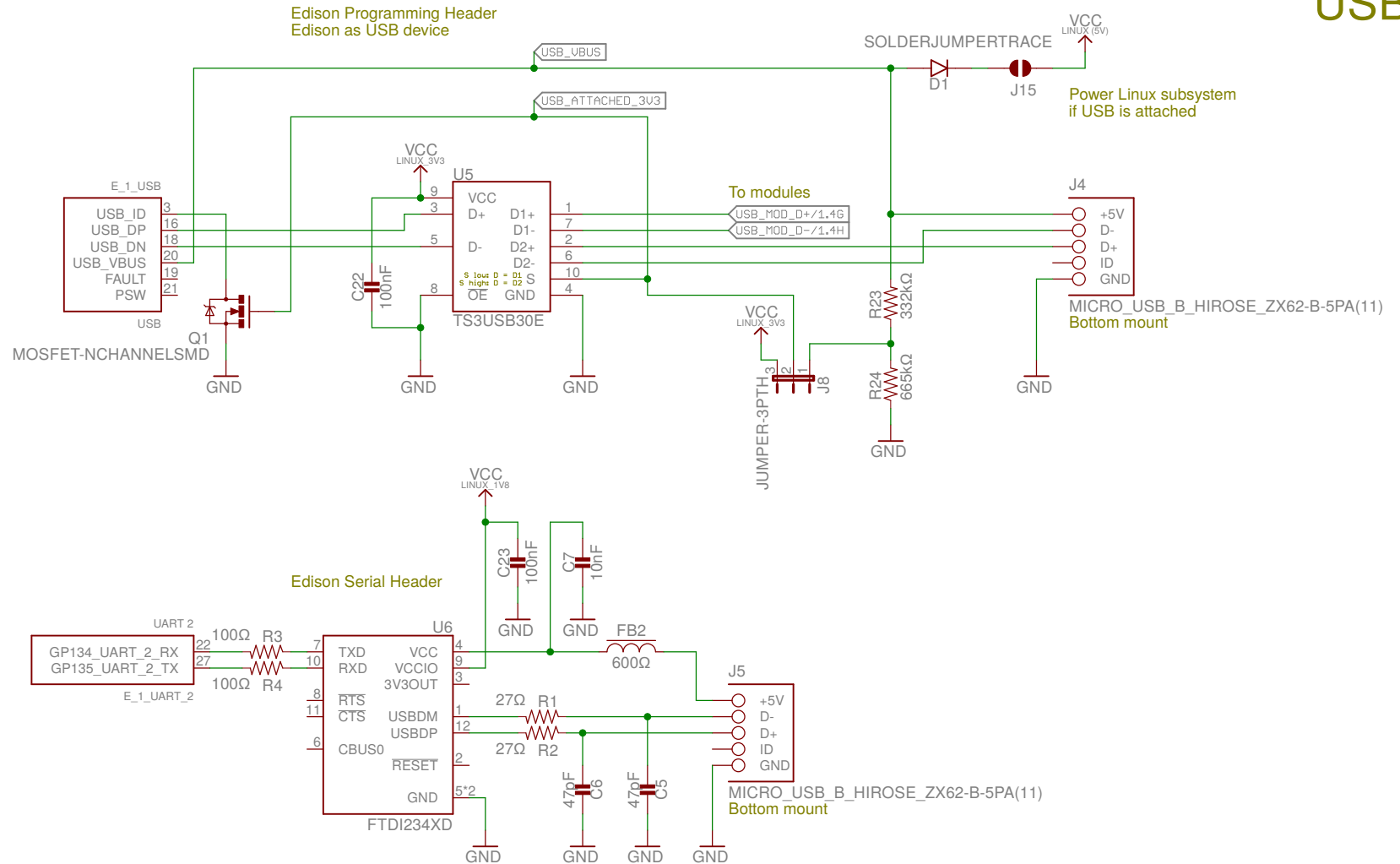
## Storage Master

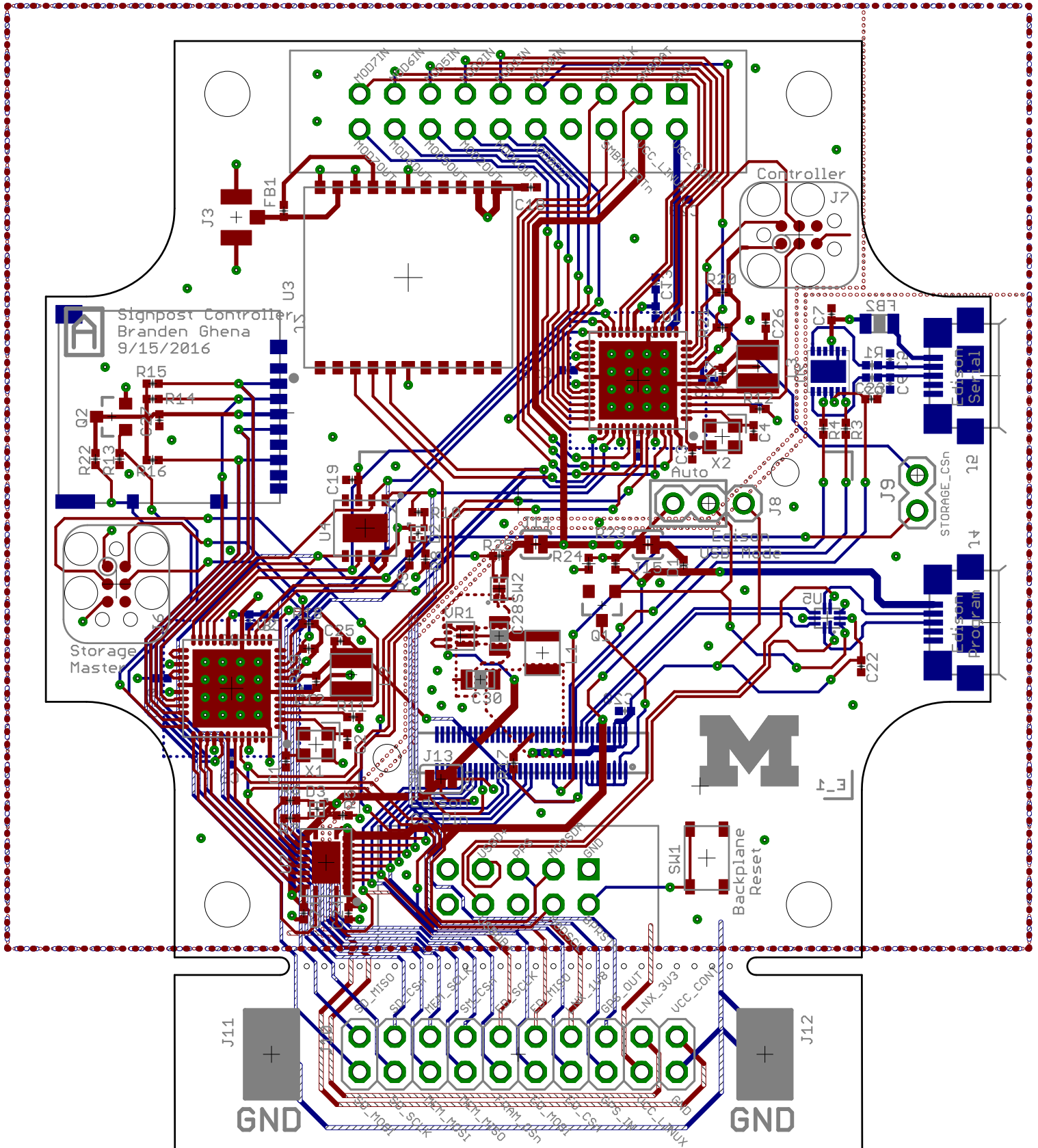


## Edison



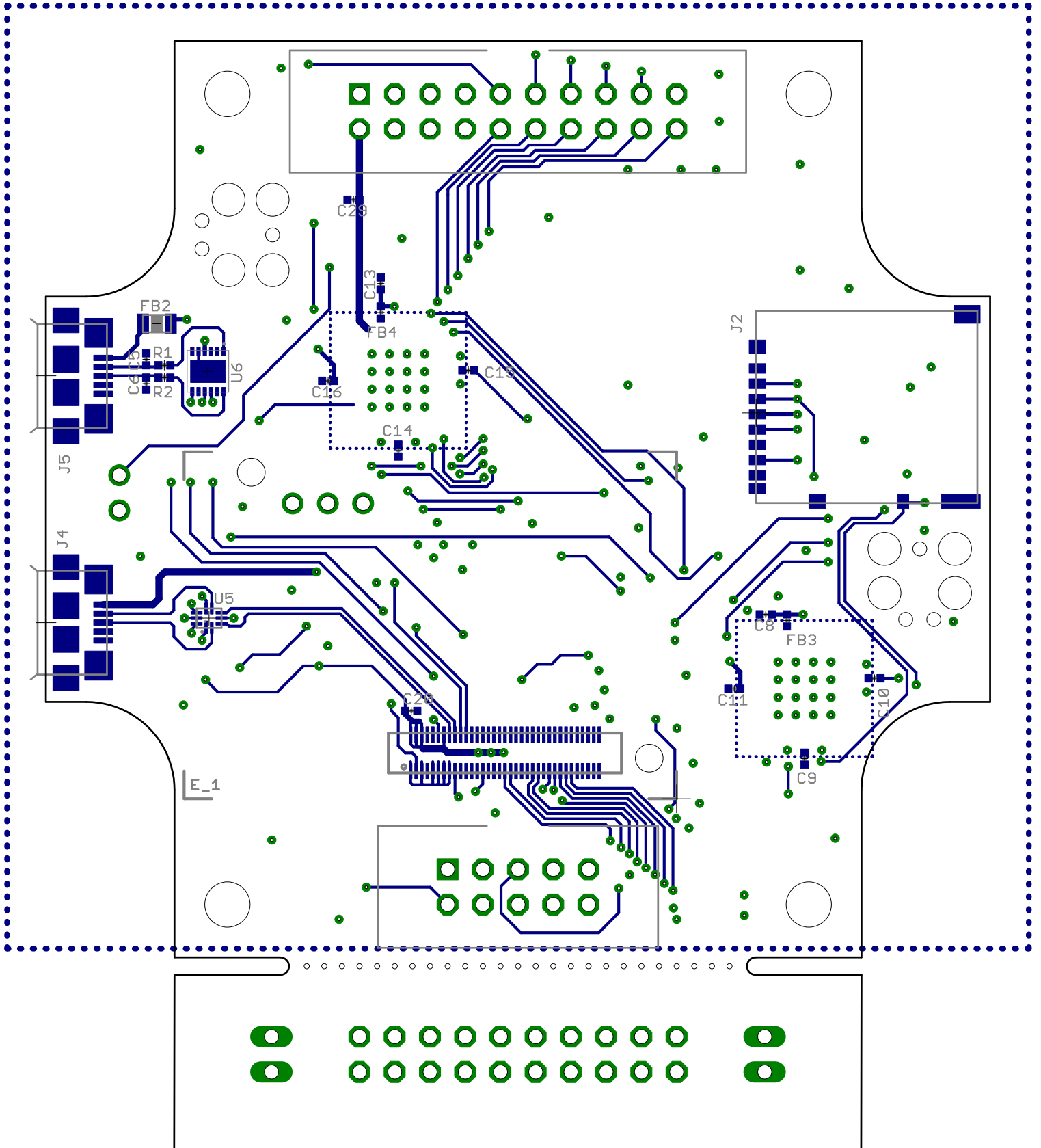
## USB





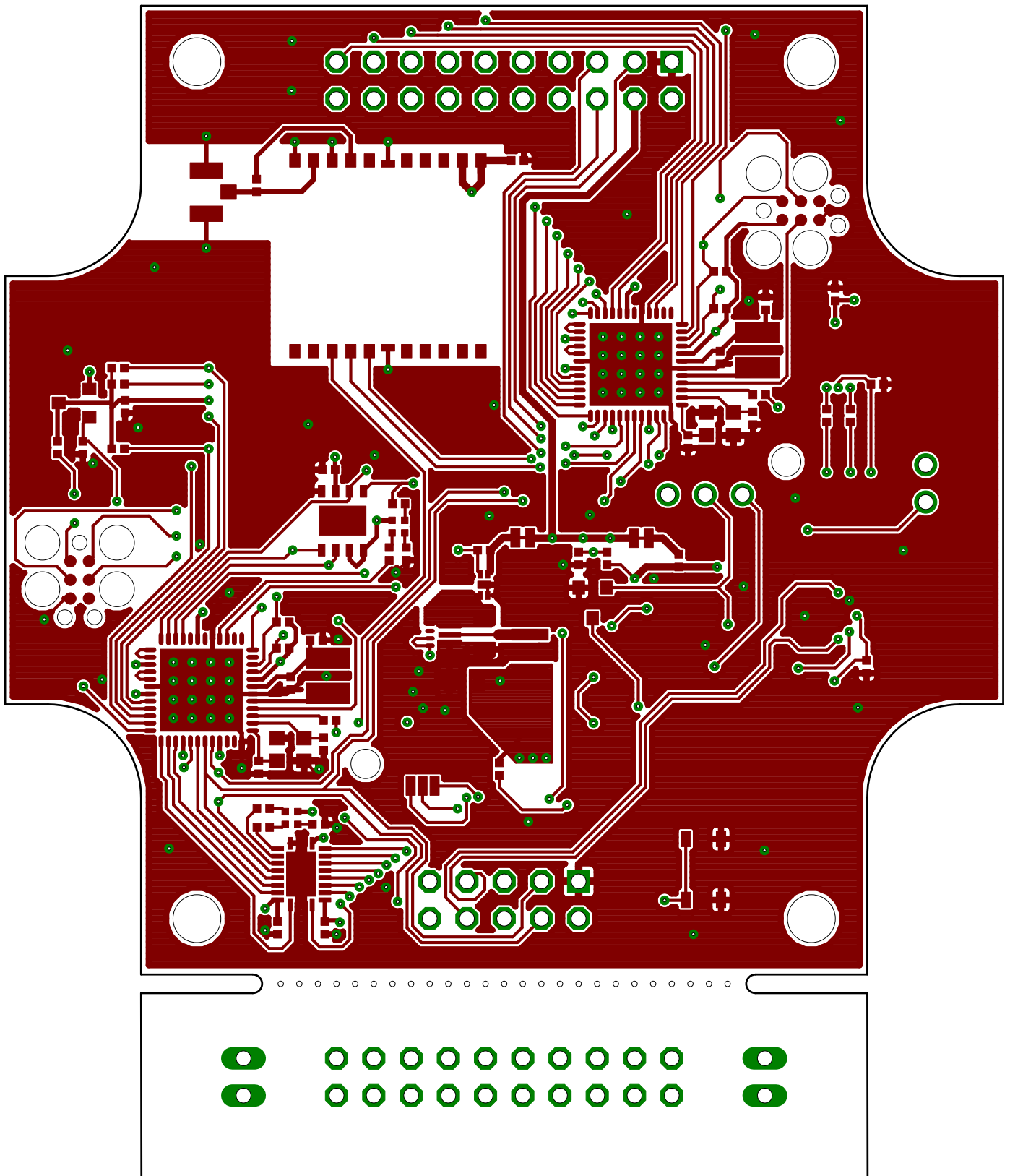


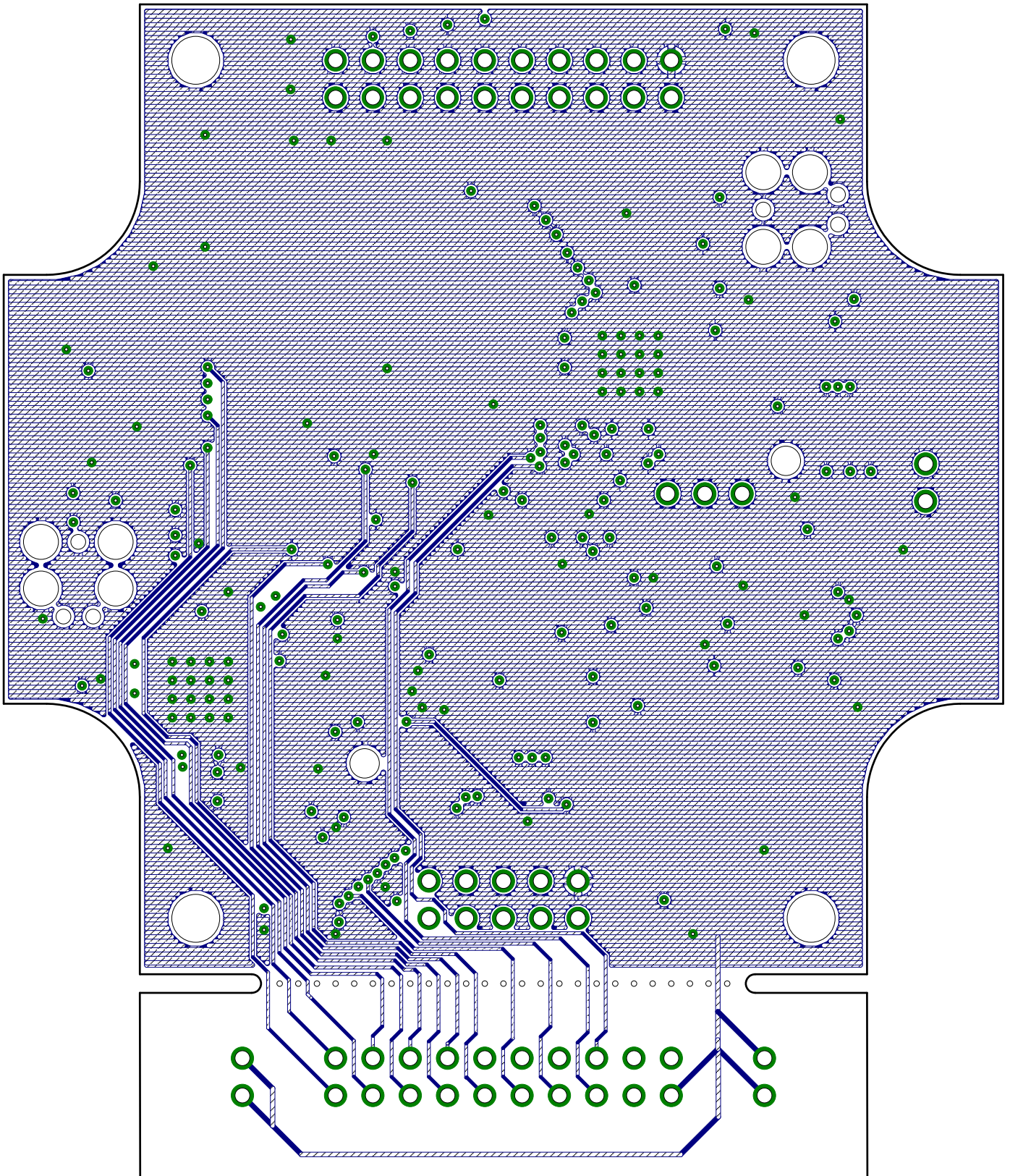
# Bottom Layer

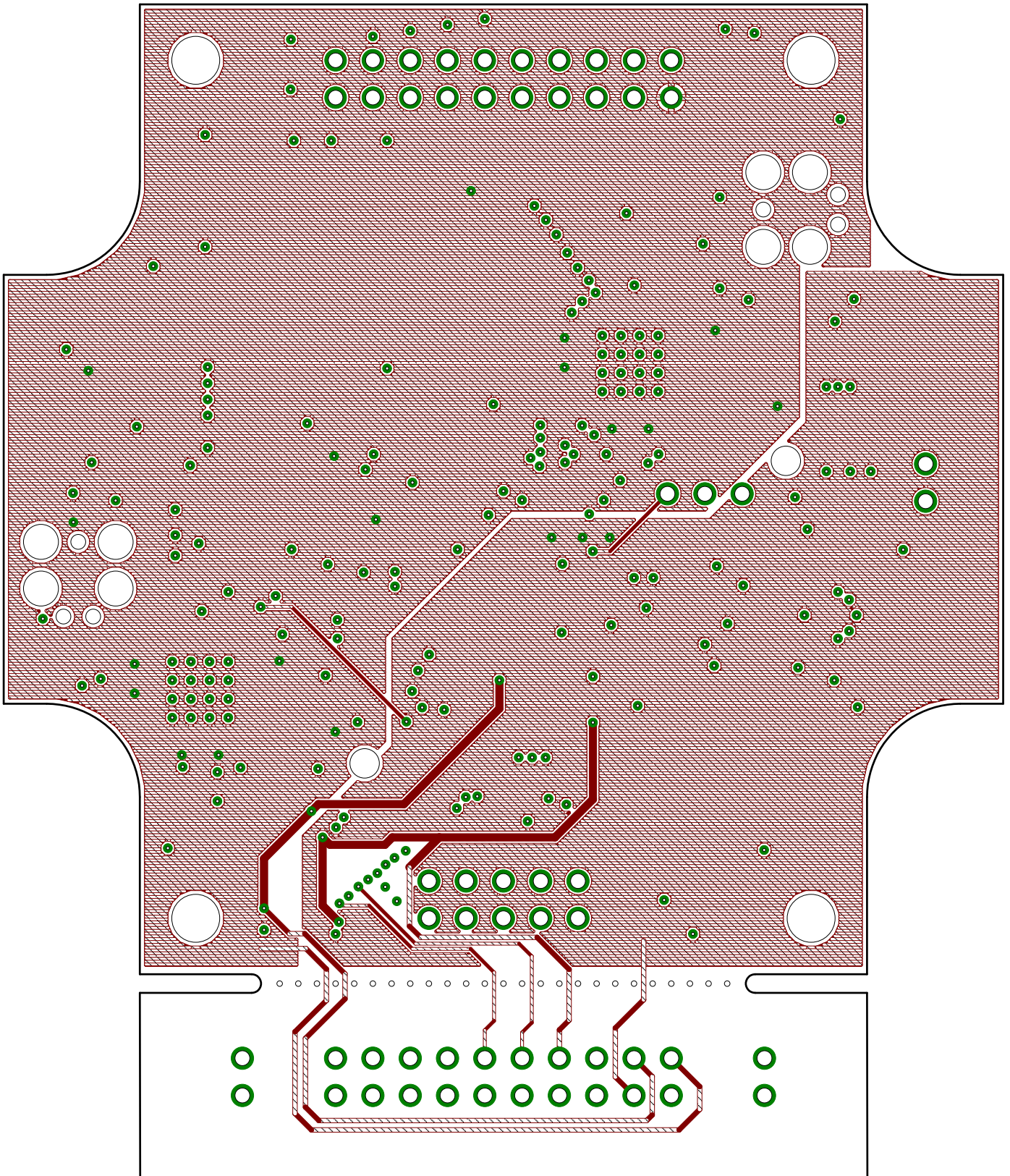




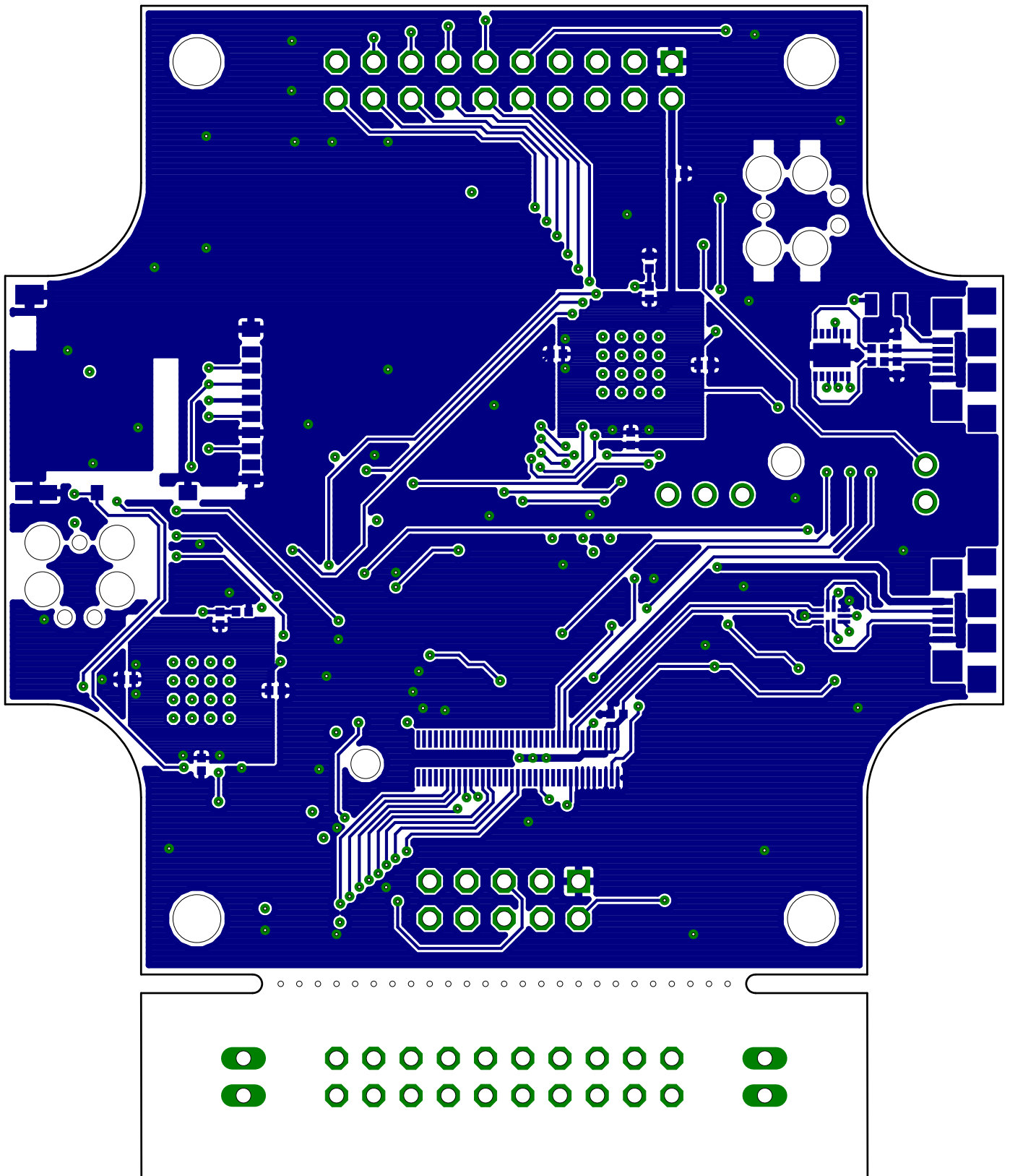
Top Copper Layer



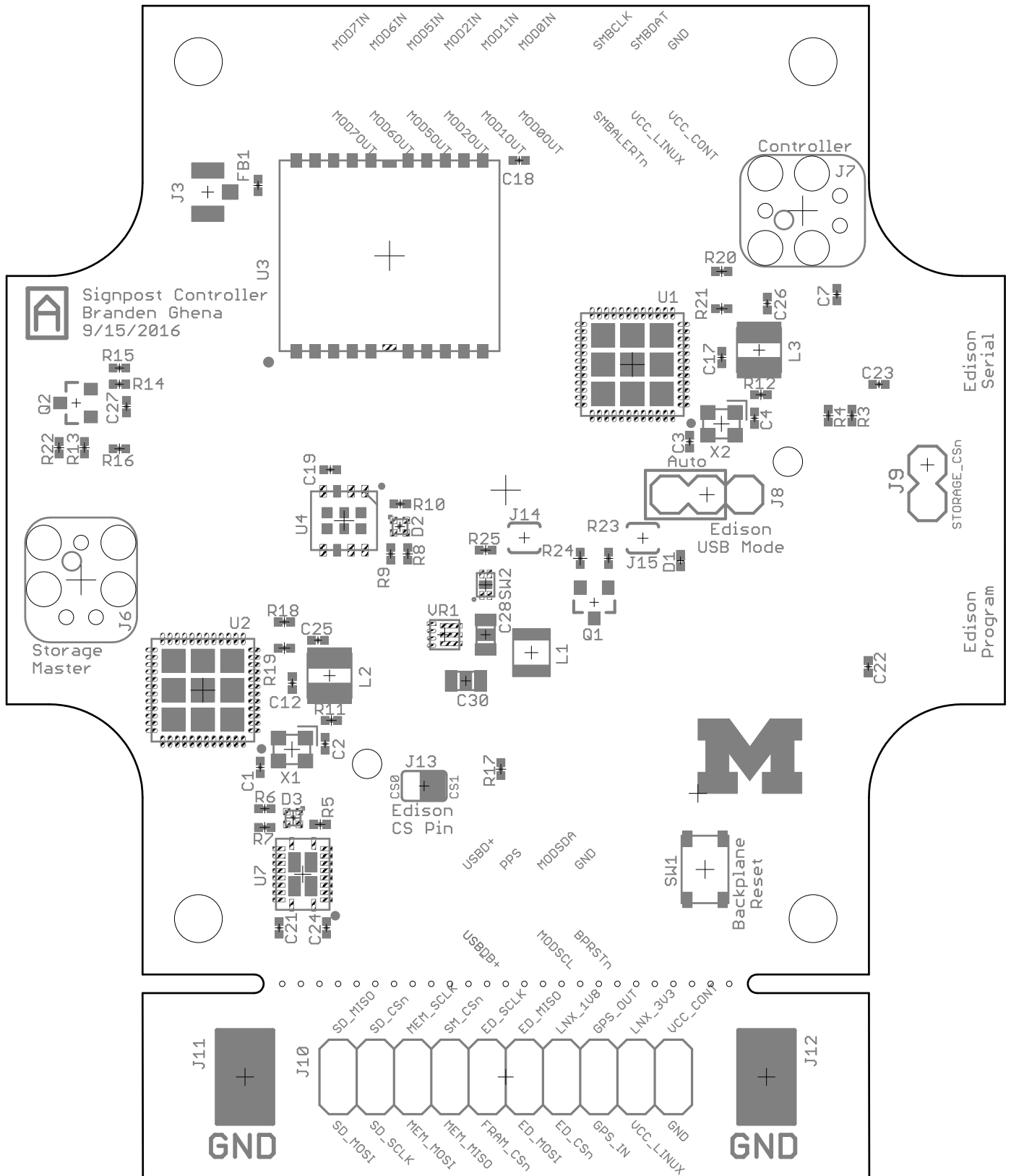




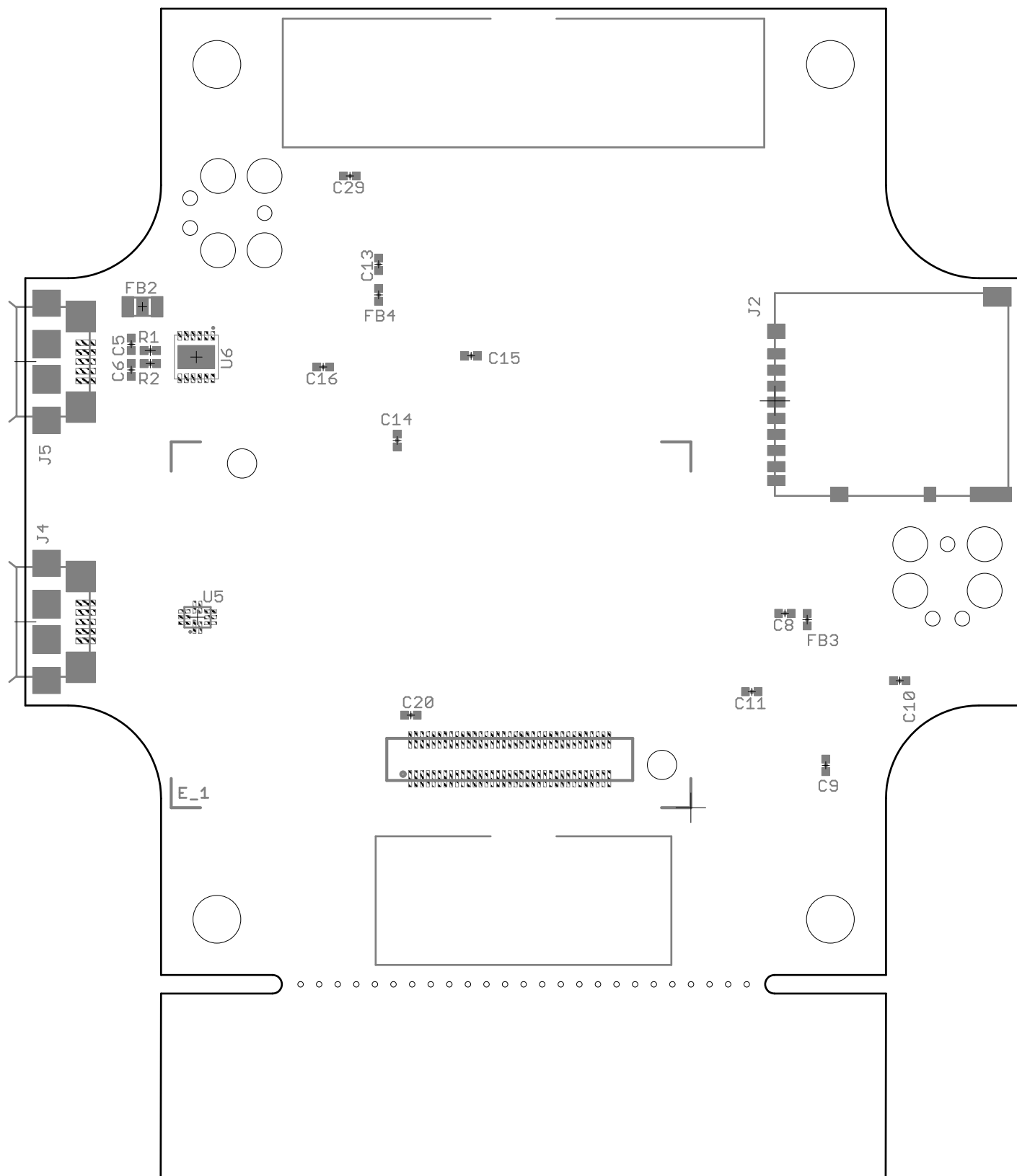
Bottom Copper Layer



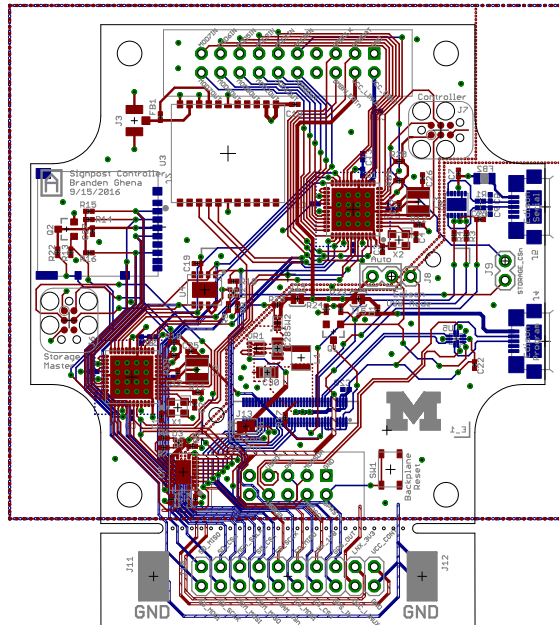
# Top Paste Layer with Silkscreen



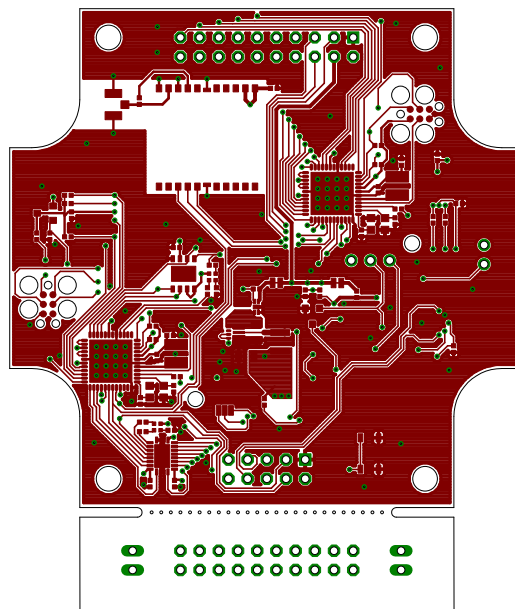
# Bottom Paste Layer with Silkscreen



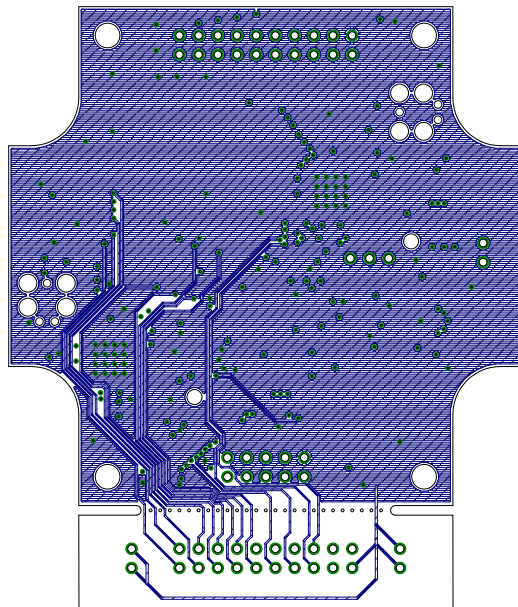
Top and Bottom Layers 1:1 Scale

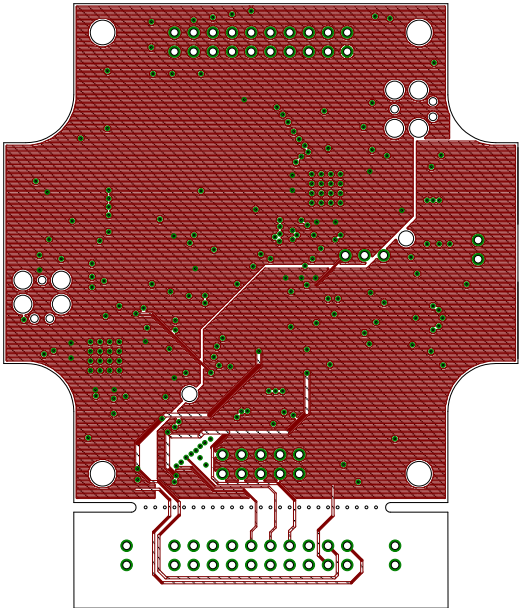


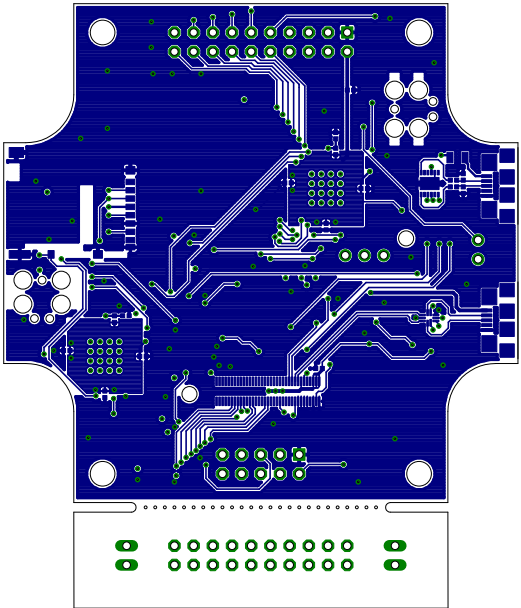
Top Layer 1:1 Scale











Qty	Value	Device	Package	Parts	Description	AMAZON	DIGIKEY	MOUSER	NEWARK	On-Hand
4	8pF	CAPACITOR0402_CAP	0402_CAP	C1, C2, C3, C4	0402 Capacitor		490-8230-1-ND			
2	47pF	CAPACITOR0402_CAP	0402_CAP	C5, C6	0402 Capacitor		490-6241-1-ND			
1	10nF	CAPACITOR0402_CAP	0402_CAP	C7	0402 Capacitor		490-6296-1-ND			
17	100nF	CAPACITOR0402_CAP	0402_CAP	C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24	0402 Capacitor		490-10777-1-ND			
1	10uF	CAPACITOR0805_CAP	0805_CAP	C28	0402 Capacitor		490-8316-1-ND			
3	4.7uF	CAPACITOR0402_CAP	0402_CAP	C25, C26, C27	0402 Capacitor		490-13252-1-ND			
1	10uF	CAPACITOR0402_CAP	0402_CAP	C29	0402 Capacitor		490-13811-1-ND			
1	22uF	CAPACITOR0805_CAP	0805_CAP	C30	0402 Capacitor		490-1719-1-ND			
1	DIODE	DIODE	0402_DIODE	D1			P18981CT-ND			
2	SML-LX0404SIUPGUSB	SML-LX0404SIUPGUSB	1MM_SQ_4PAD	D2, D3	1mm^2 RGB LED		67-2125-1-ND			Yes
1	EDISON_CONNECTOR_SEGMENTED	EDISON_CONNECTOR_SEGMENTED	EDISON_DAUGHTER	E_1		B00PTVSS4A		798-DF40HC3070DS4V51		Yes
1	300ohm	FERRITE_BEAD0402	0402_CAP	FB1			ACML-0402-301-TCT-ND			
1	600ohm	FERRITE_BEAD0805	0805_CAP	FB2			240-2390-1-ND			
2	1.5kohm	FERRITE_BEAD0402	0402_CAP	FB3, FB4			490-5216-1-ND			
1	MODULE_CONTROLLER	MODULE_CONTROLLER	MODULE_CONTROLLER	J1	Controller module for signpost		S9172-ND , S9169-ND			Yes
1	DM3AT-SF-PEJM5	DM3AT-SF-PEJM5	DM3AT-SF-PEJM5	J2	CONN MICRO SD R/A PUSH-PUSH SMD		HR1964CT-ND			Yes
1	U.FL-R-SMT	U.FL-R-SMT	U.FL-SMT	J3	U.FL-R-SMT Antenna Connector		H122041-ND			
2	MICRO_USB_B_HIROSE_ZX62-B-5PA(11)	MICRO_USB_B_HIROSE_ZX62-B-5PA(11)	USB_MICRO_B_HIROSE-ZX62-B-5PA(11)	J4, J5	Connector Receptacle USB - micro B 2.0 5 Position Surface Mount, Right Angle, Horizontal		H125270CT-ND			Yes
2	TC2030-JLINK-L	TC2030-JLINK-L	TC2030-IDC	J6, J7						
1	JUMPER-3PTH	JUMPER-3PTH	1X03	J8						Yes
1	JUMPER-2PTH	JUMPER-2PTH	1X02	J9	Jumper					Yes
1	PINHD-2X10	2X10		J10	PIN HEADER					Yes
2	PINHD-1X2	1X02		J11, J12	PIN HEADER					Yes
1	0.47uH	INDUCTORDFE322512C	DFE322512C	L1	A very specific inductor			81-1277AS-H-R47MP2		
2	22uH	LHQ3NP		1212 L2, L3	LHQ3NP Inductor		490-5350-1-ND			
1	MOSFET-NCHANNELSMD	MOSFET-NCHANNELSMD	SOT23-3	Q1	Generic NMOS footprint		SI2312CDS-T1-GE3CT-ND			Yes
1	NX3008PBK	NX3008PBK	SOT23-3	Q2	MOSFET - P Channel		568-10499-1-ND	771-NX3008PBK,215	74T4665	
2	27ohm	RESISTOR0402_RES	0402_RES	R1, R2	Resistor		1276-3907-1-ND			
2	100ohm	RESISTOR0402_RES	0402_RES	R3, R4	Resistor		1276-3429-1-ND			
6	1kohm	RESISTOR0402_RES	0402_RES	R5, R6, R7, R8, R9, R10	Resistor		1276-3430-1-ND			
6	10kohm	RESISTOR0402_RES	0402_RES	R11, R12, R13, R14, R15, R16, R17	Resistor		1276-3431-1-ND			
5	100kohm	RESISTOR0402_RES	0402_RES	R18, R18, R19, R20, R22	Resistor		1276-3432-1-ND			
1	332kohm	RESISTOR0402_RES	0402_RES	R23	Resistor		1276-4245-1-ND			
1	665kohm	RESISTOR0402_RES	0402_RES	R24	Resistor		1276-4275-1-ND			
1	1Mohm	RESISTOR0402_RES	0402_RES	R25	Resistor		1276-3433-1-ND			
1	PTS810SJ	PTS810SJ	PTS810SJ	SW1	PTS810SJ Push Button Switch		CKN10504CT-ND			Yes
1	SIP3240X	SIP3240X	TDFN4	SW2	High power (2.4 A) high-side switch		SIP32402ADNP-T1GE4CT-ND			
2	SAM4LC8AA	SAM4LC8AA	QFN-48-7MM	U1, U2	Atmel SAM4L microcontroller. ARM Cortex M4 with 512 KB Flash and 64 KB RAM		ATSAM4LC8AA-MU-ND			
1	RXM-GPS-RM-T	RXM-GPS-RM-T	RXM-GPS-RM-T	U3	The RM Series GPS receiver module is a		RXM-GPS-RM-TCT-ND			
1	FM25CLXXB-DG	FM25CLXXB-DG	TDFN-8	U4	Cypress FRAM		FM25CL64B-DGRA-ND			
1	TS3USB30E	TS3USB30E	UQFN-10	U5	USB Mux with OE control and ESD		296-24684-1-ND			
1	FTDI234XD	FTDI234XD	DFN-12/3MM	U6	FTDI234XD USB to UART Bridge in 3x3 DFN Package		768-1178-1-ND	895-FT234XD-R	53X3171	
1	TXS0108EVQFN20	TXS0108EVQFN20	R-PVQFN-N20	U7	TXS0108E 8-Bit Bi-directional Voltage Translator		296-24806-1-ND			
1	TP562086	TP562086	RLT0007A	VR1	Buck Switching Regulator IC Positive Fixed 3.3V 1 Output 3A 7-VFDFN		296-40831-1-ND			
2	16MHz	FH1600015	FHXXX	X1, X2	Pericom Type FH 16 MHz 2.5 x 2.0 mm		FH1600015CT-ND			