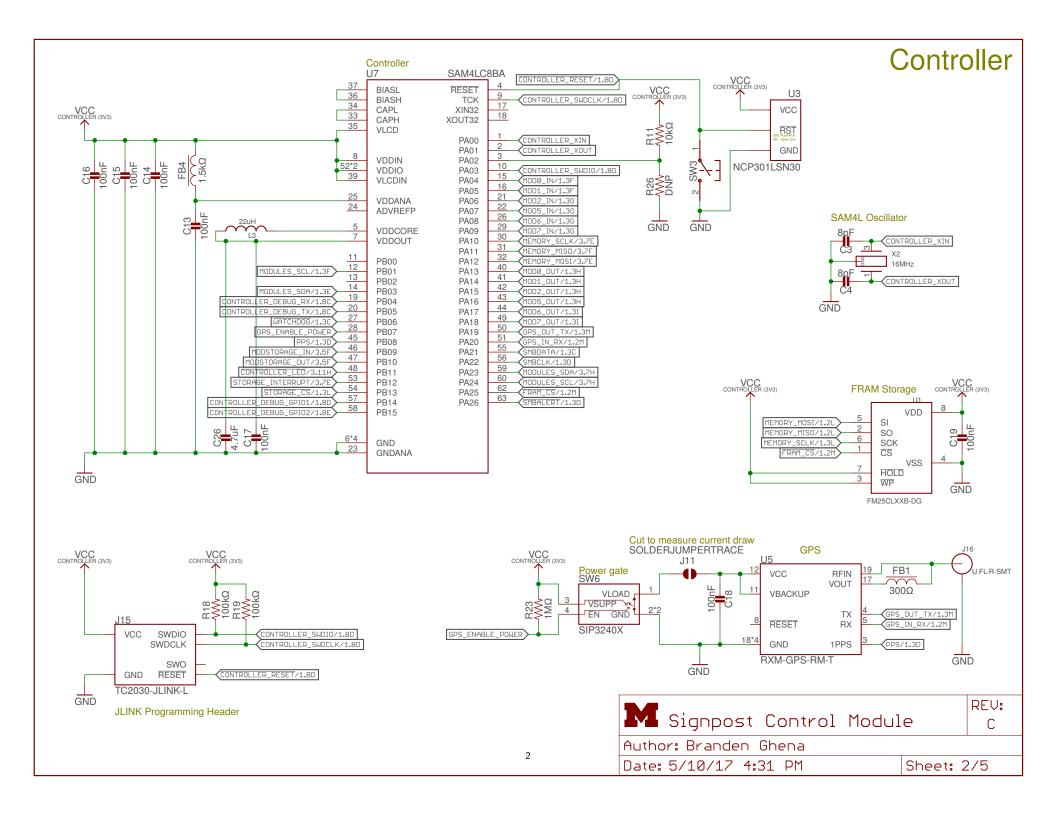
Headers VCC VCC CONTROLLER (3V3) LINUX (5V) Signpost Headers VCC CONTROLLER VCC LINUX J4CONTROLLER BACKPLANE_RESET BACKPLANE_RESET/3.5I WATCHDOG/2.4G WATCHDOG DBG_TX CONTROLLER_DEBUG_TX/2.4G DBG_RX CONTROLLER DEBUG RX/2.4G DEBUG HEADER **SMBDATA** SMBDATA/2.6H **SMBCLK** SMBCLK/2.6H DBG SWDIO CONTROLLER_SWDIO/2.3N **SMBALERT** SMBALERT/2.6I DBG_SWDCLK CONTROLLER SWDCLK/2.3N DBG RESET CONTROLLER_RESET/2.30 PPS/2.4G PPS SIGNPOST CONTROL MODULE DBG_GPIO1 CONTROLLER_DEBUG_GPI01/2.4I USB D+ JSB_MOD_D+/5.8D DBG GPIO2 CONTROLLER_DEBUG_GPI02/2.41 USB D-USB_MOD_D-/5.8E GND1 Main Decoupling Capacitor MODULES_SDA MODULES_SDA/2.4F MODULE CONTROLLER MODULES SCL MODULES_SCL/2.4F VCC CONTROLLER (3V3) GND MOD0_IN MODØ IN/2.6D J4STORAGE_MASTER MOD1 IN MOD1_IN/2.6D MOD2_IN MOD2_IN/2.6D DBG_TX STORAGE_DEBUG_TX/3.5H DBG RX TORAGE_DEBUG_RX/3.5H MOD5 IN MOD5_IN/2.6D DEBUG HEADER MOD6 IN MOD6 IN/2.6E MOD7 IN MOD7_IN/2.6E DBG SWDIO TORAGE_SWDIO/3.3M DBG SWDCLK STORAGE_SWDCLK/3.3N GND MOD0_OUT/2.6F DBG_RESET TORAGE_RESET/3.3N MOD0 OUT MOD1 OUT MOD1_OUT/2.6F MOD2 OUT MOD2_OUT/2.6F DBG GPIO1 TORAGE_DEBUG_GPI01/3.5G DBG_GPIO2 MOD5_OUT MOD5_OUT/2.6G 18 MOD6_OUT 10D6 OUT/2.6G 200 MOD7_OUT GND1 1*2 MODULE CONTROLLER GND MODULE CONTROLLER GND **Test Points** Backplane Reset Button SD MOSI/3.7G SD_MISO/3.7E GND/2.1J EDISON_PWRBTN/3.7D 3 5 7 0 SD_SCLK/3.7 EDISON_INTERRUPT_1V8/4.5 MEMORY_MOSI/2.6F MEMORY_SCLK/2.6E EDISON_UART_TX/5.3 DISON_UART_RX/5.3K MEMORY MISO/2.6E STORAGE CS/2.41 90 Ŏ<u>10</u> FRAM CS/2.6I EDISON SPI SCLK 1V8/4.5I BACKPLANE RESET/3.5I EDISON_SPI_MOSI_1V8/4.5J EDISON_SPI_MISO_1V8/4.5J EDISON_SPI_CS_1V8/4.5J VCC_LINUX_1V8/4.5I GND GPS_IN_RX/2.6G GPS_OUT_TX/2.6G VCC LINUX/4.3D VCC LINUX 3V3/4.1L 19 VCC_CONTROLLER/2.1C GND/2.1J

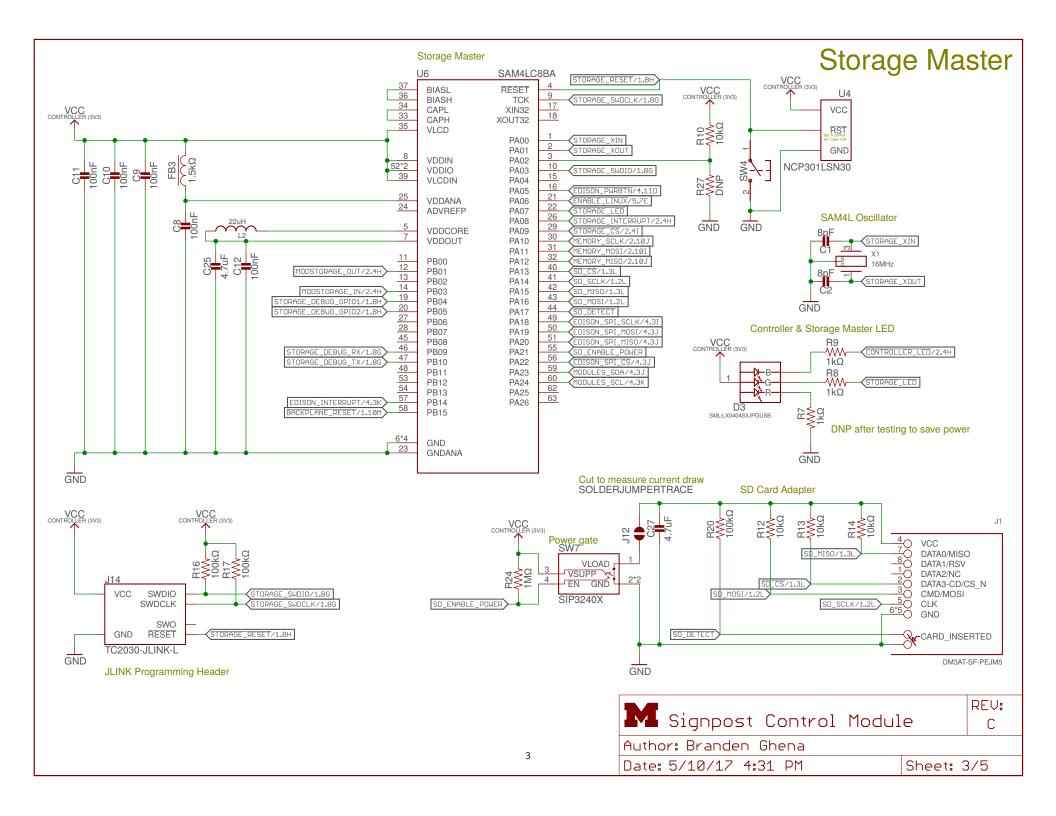
M Signpost Control Module

REV:

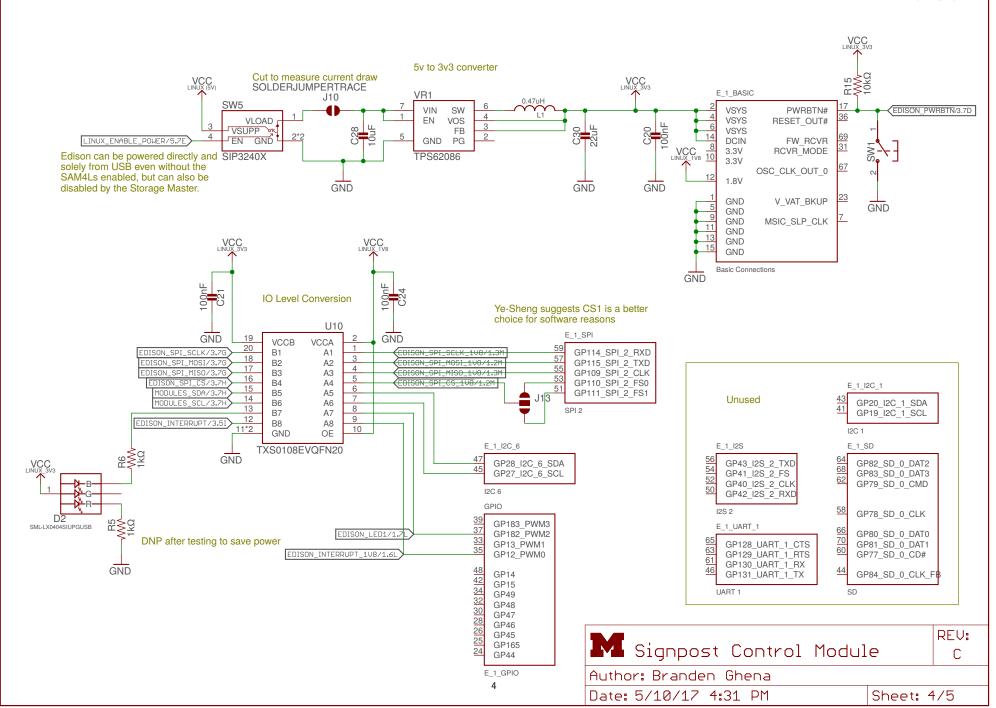
Author: Branden Ghena

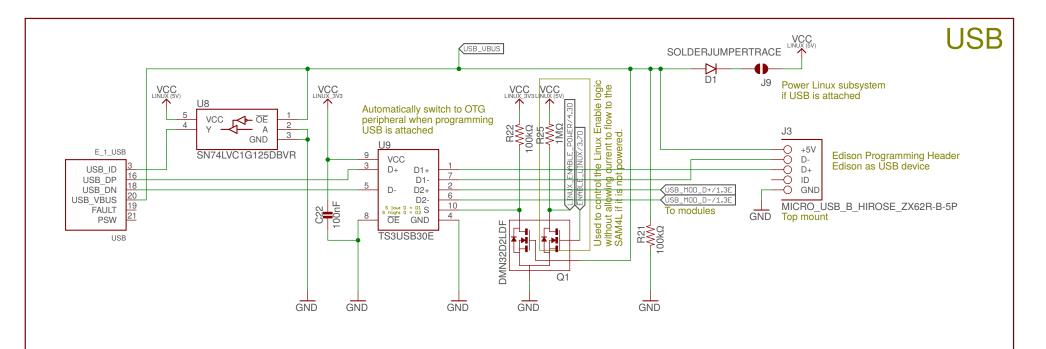
Date: 5/10/17 4:31 PM | Sheet: 1/5

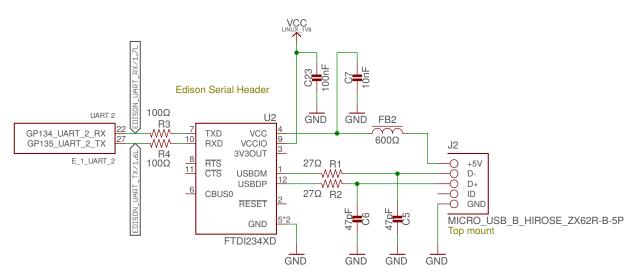




Edison



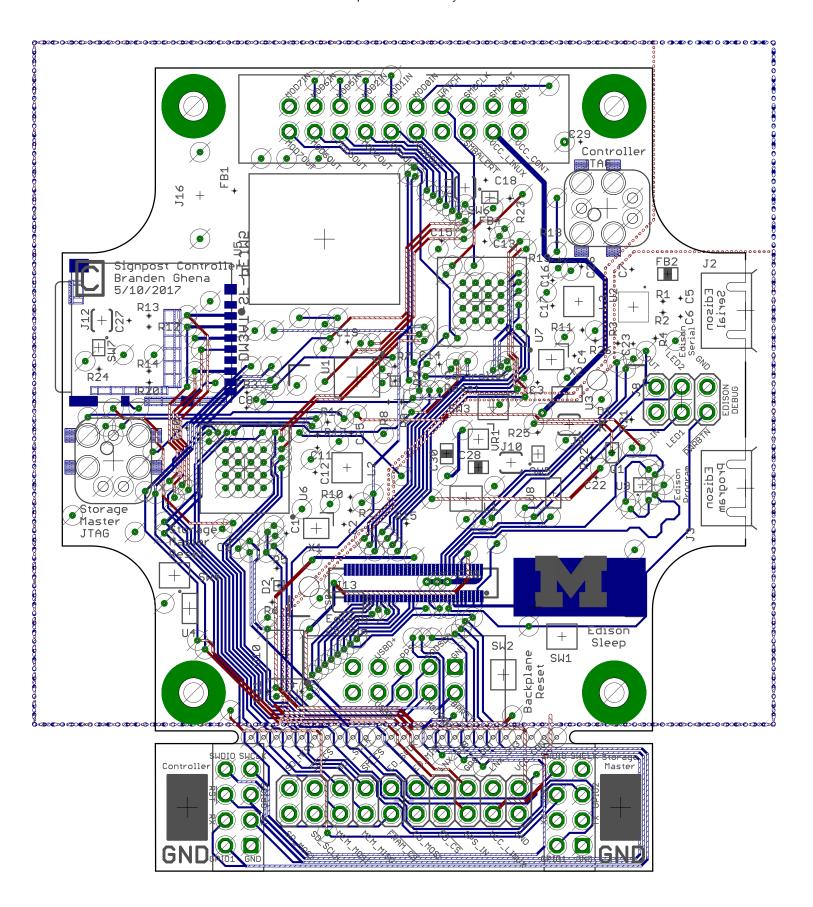


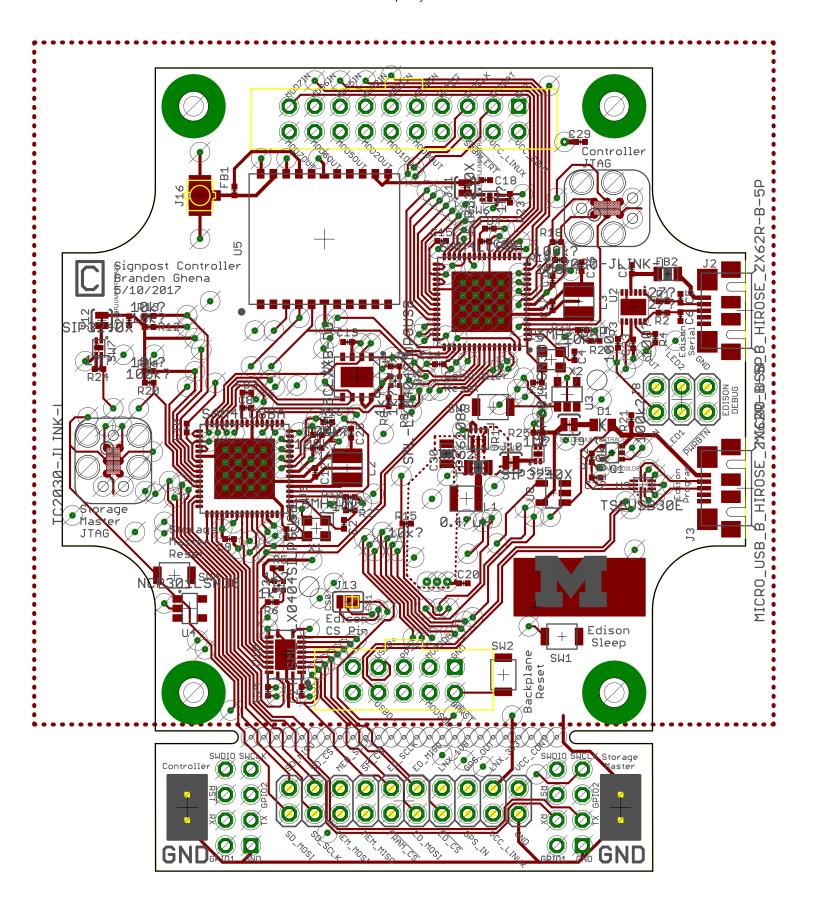


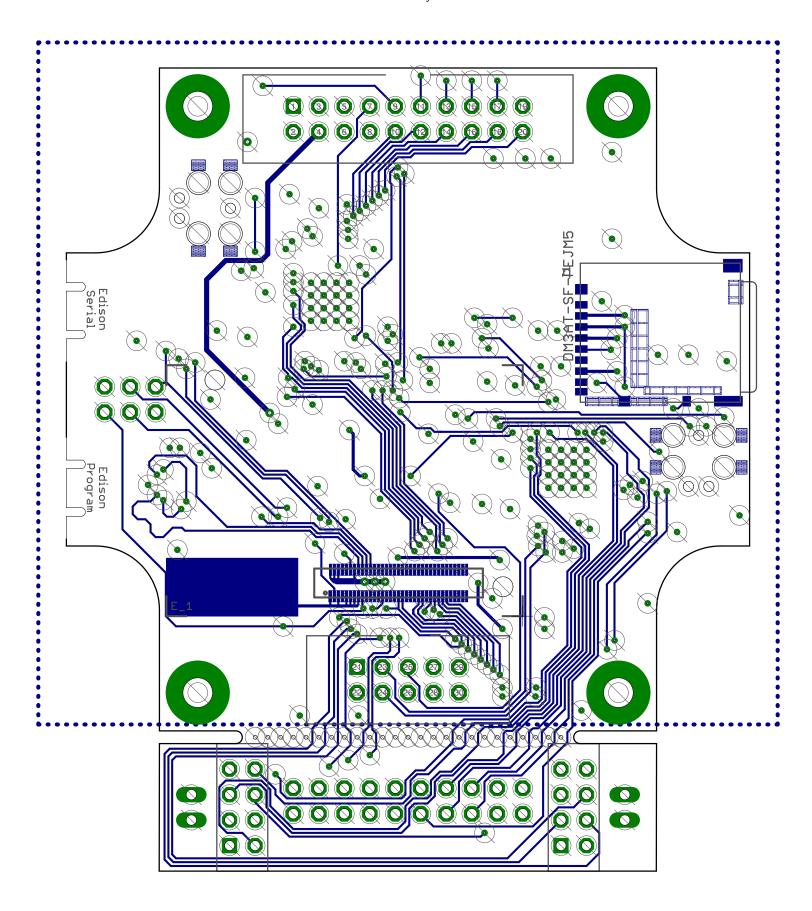
M Signpost Control Module	REV: C
Author: Branden Ghena	

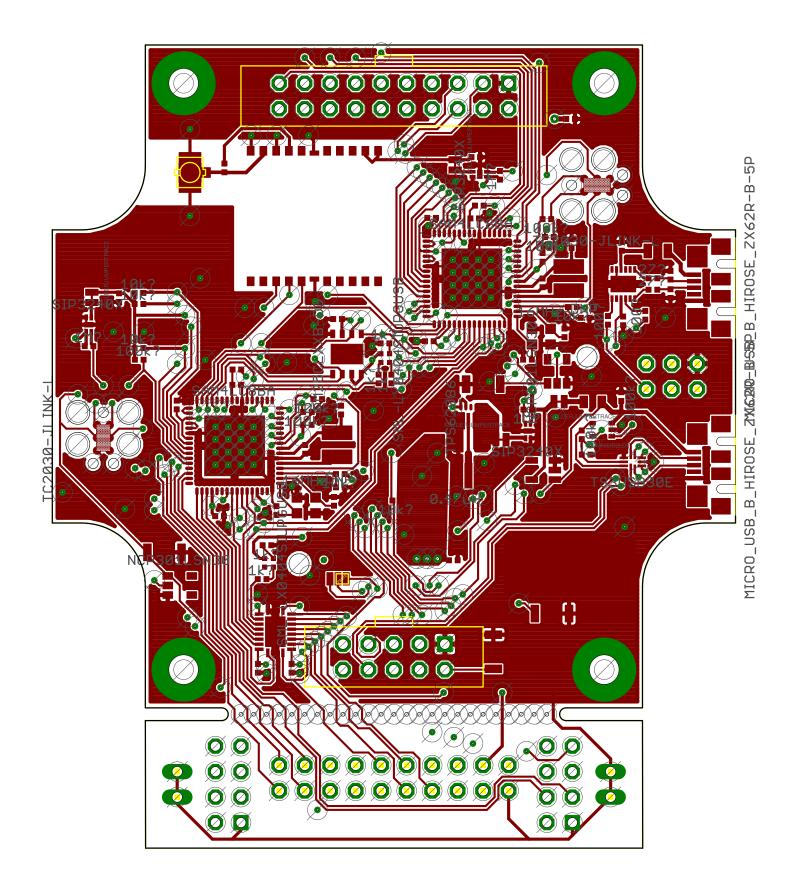
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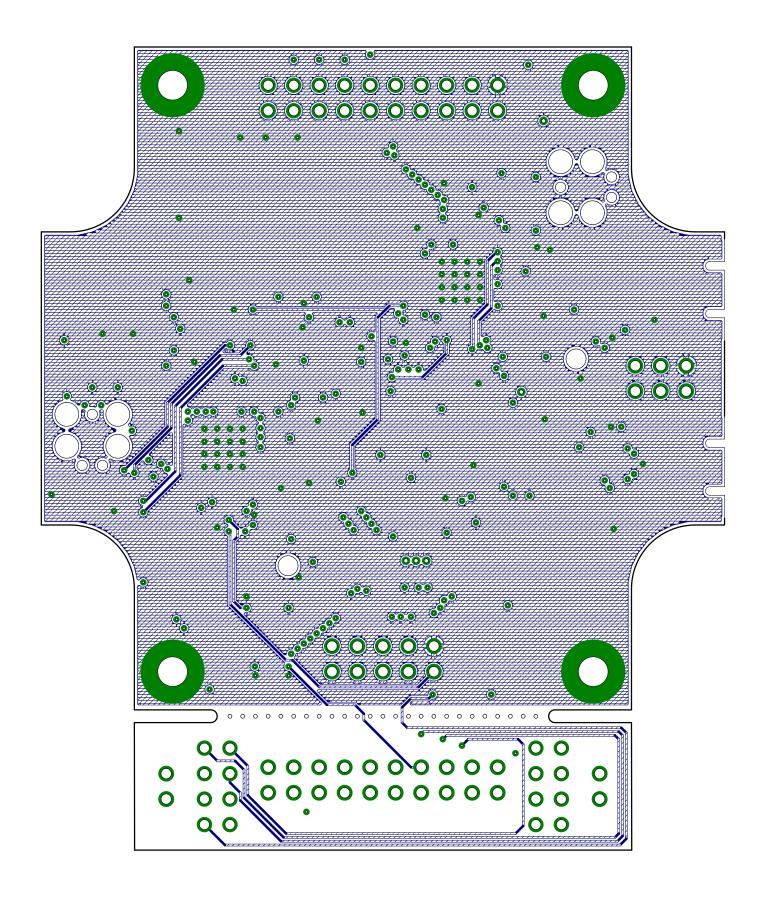
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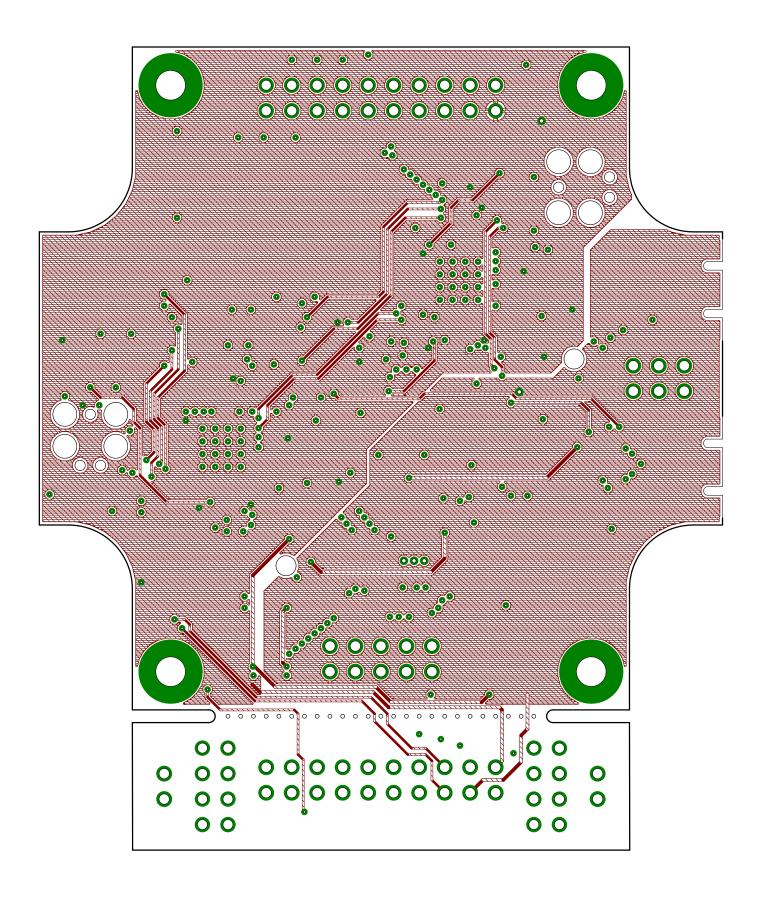


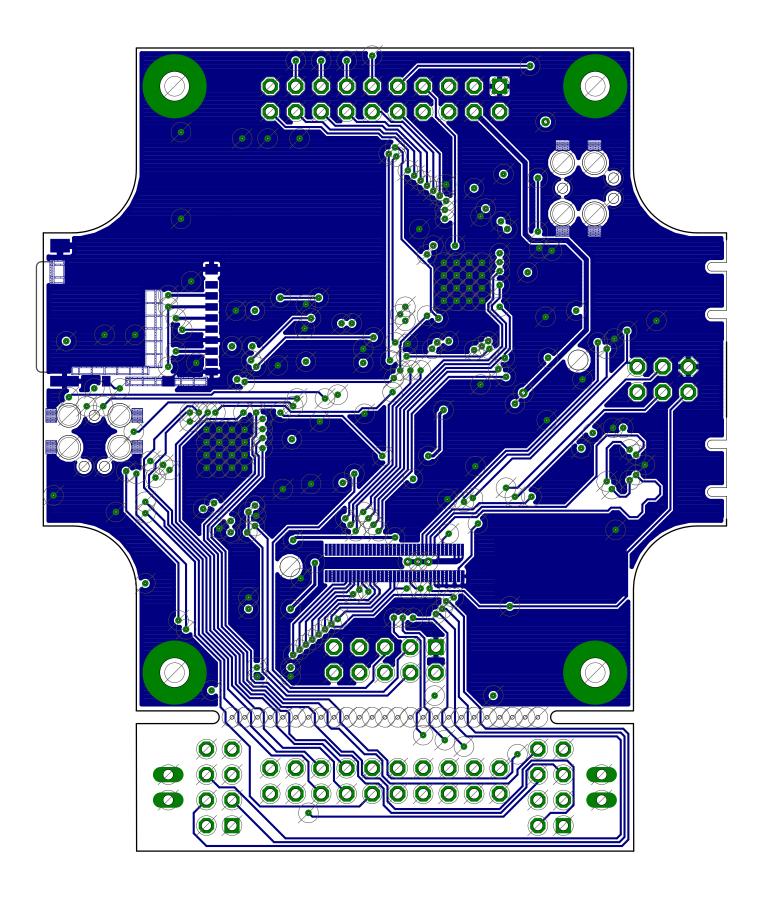


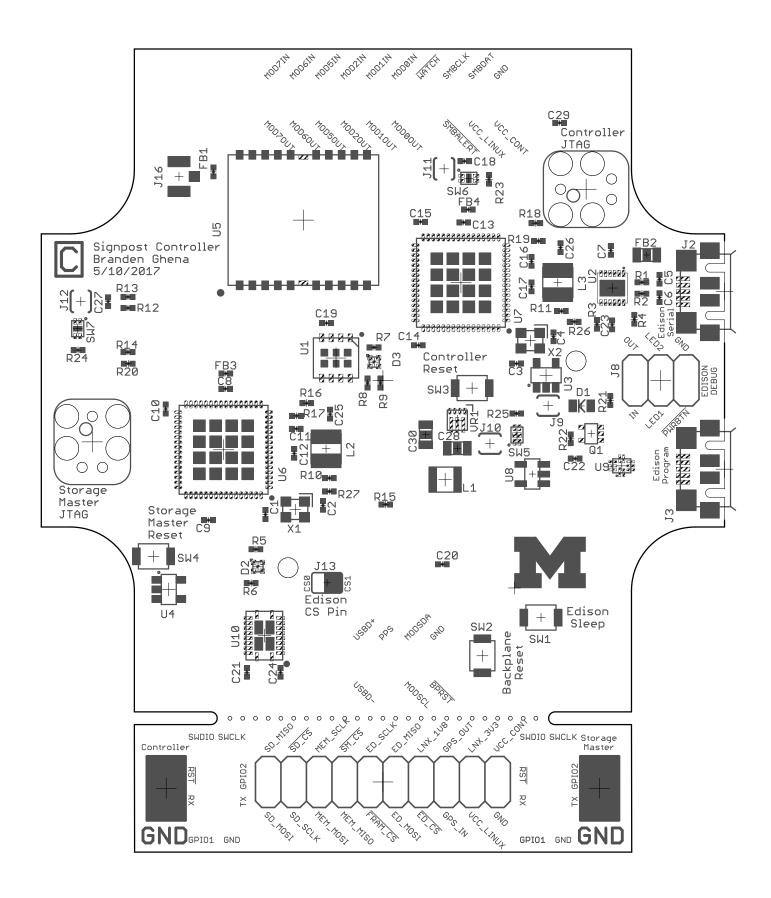


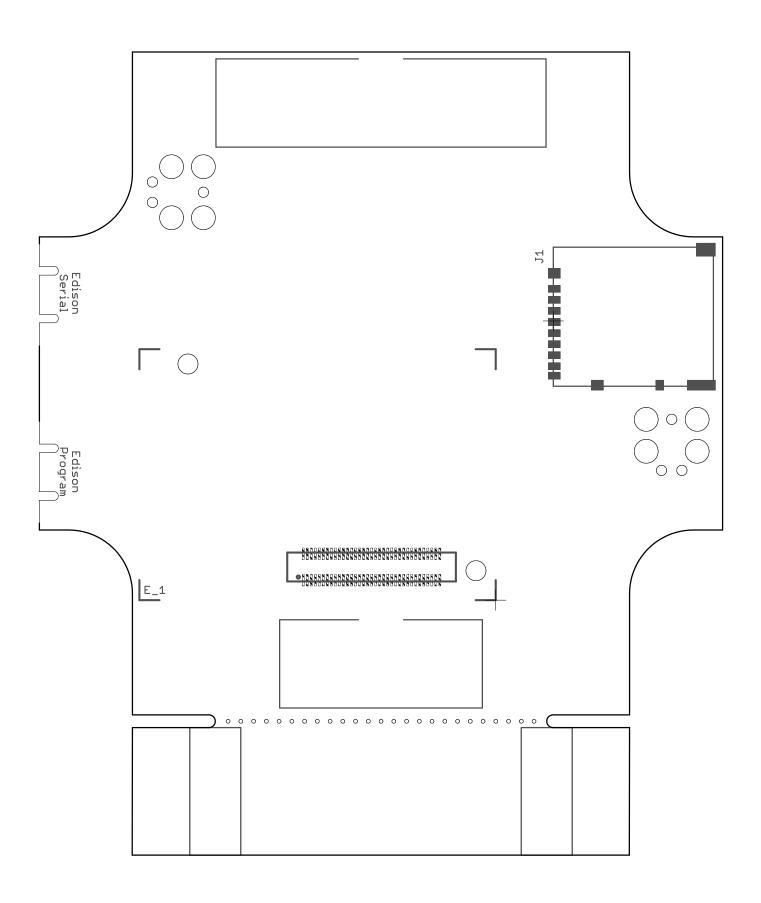


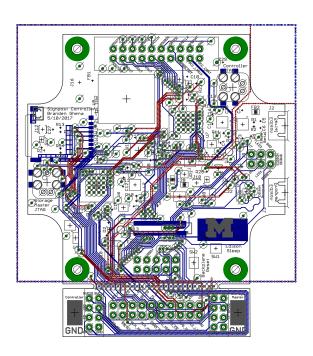


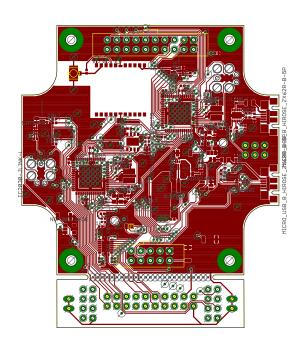


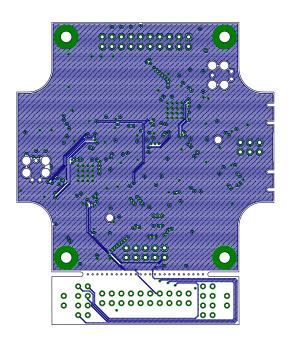


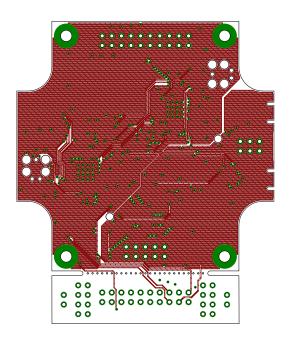


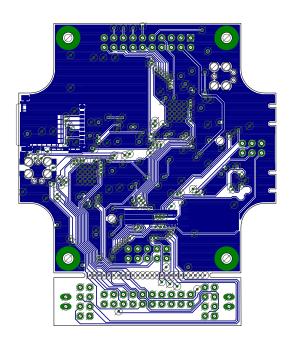












Qty Value Device 48pF CAPACITOR0402 CAP 247pF CAPACITOR0402 CAP 110nF CAPACITOR0402 CAP 17 100nF CAPACITOR0402 CAP CAPACITOR0402 CAP 34.7uF 110uF CAPACITOR0805_CAP 110uF CAPACITOR0402 CAP CAPACITOR0805_CAP 1 22uF 1 DIODE DIODE 2 SML-LX0404SIUPGUSB SML-LX0404SIUPGUSB 1 EDISON CONNECTOR SEGMENTED EDISON CONNECTOR SEGMENTED FERRITE BEAD0402 1 300Ohm 16000hm FERRITE BEAD0805 2 1.5kOhm 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 10.47uH INDUCTORDFE322512C 2 22uH LHQ3NP 1 UMICH_SOLID_MEDIUM UMICH_SOLID_MEDIUM 1 DMN32D2LDF DMN32D2LDF 2 270hm RESISTOR0402 RES 2 1000hm RESISTOR0402 RES 5 1kOhm RESISTOR0402 RES 6 10kOhm RESISTOR0402 RES 7 100kOhm RESISTOR0402_RES 3 1MOhm RESISTOR0402 RES 2 DNP RESISTOR0402 RES 4 B3U-1000P B3U-1000P 3 SIP3240X SIP3240X 1 FM25CLXXB-DG FM25CLXXB-DG 1 FTDI234XD FTDI234XD 2 NCP301LSN30 NCP301LSN30 1 RXM-GPS-RM-T RXM-GPS-RM-T 2 SAM4LC8BA SAM4LC8BA 1 SN74LVC1G125DBVR SN74LVC1G125DBVR 1 TS3USB30E TS3USB30E 1 TXS0108EVQFN20 TXS0108EVQFN20 1 TPS62086 TPS62086

2 16MHz

FH1600015

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 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 UMICH_SOLID_200MIL SOT353 0402_RES 0402_RES 0402 RES 0402_RES 0402_RES 0402_RES 0402_RES B3U-1000P TDFN4 TDFN-8 **DFN-12/3MM** SOT23-5 RXM-GPS-RM-T QFN-64-9MM SOT-23-5 UQFN-10 R-PVQFN-N20 RLT0007A

FHXXX

```
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
SW1, SW2, SW3, SW4
SW5, SW6, SW7
U1
U2
U3, U4
U5
U6, U7
U8
U9
U10
VR1
```

X1, X2

Description 0402 Capacitor 0402 Capacitor

1mm² RGB LED

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

Common source dual n-channel mosfet

Resistor

Resistor

Resistor

Resistor

Resistor

Resistor

Resistor

Switch

High power (2.4 A) high-side switch

Cypress FRAM

FTDI234XD USB to UART Bridge in 3x3 DFN Package

Power-on-reset. LSN30 -> Fixed 3V (for 90% of 3.3V) detector. Fixed ~100us power_on -> deassert reset. 301 -> Open Colle

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

Buck Switching Regulator IC Positive Fixed 3.3V 1 Output 3A 7-VFDFN

Pericom Type FH 16 MHz 2.5 x 2.0 mm

AMAZON DIGIKEY **MOUSER** 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 B00PTVSS4A 798-DF40HC3070DS4V51 ACML-0402-301-TCT-ND 240-2390-1-ND 1276-6395-1-ND HR1964CT-ND H125274CT-ND S9172-ND, S9169-ND, S2221EC-04-ND, S2221EC-04-ND H122041-ND 81-1277AS-H-R47MP2 490-10596-1-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 1276-3433-1-ND 1276-3431-1-ND SW1020CT-ND SIP32402ADNP-T1GE4CT-ND FM25CL64B-DGRA-ND 768-1178-1-ND 895-FT234XD-R NCP301LSN30T1GOSCT-ND RXM-GPS-RM-TCT-ND ATSAM4LC8BA-MURCT-ND 296-11603-1-nd 296-24684-1-ND 296-24806-1-ND 296-40831-1-ND

FH1600015CT-ND

NEWARK

53X3171