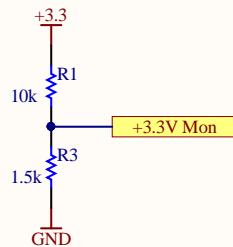
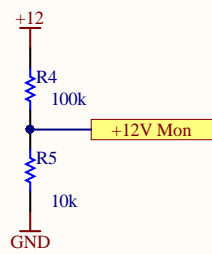


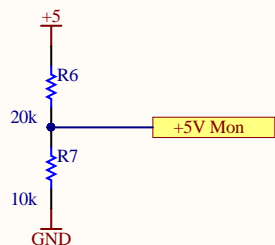
A



B



C

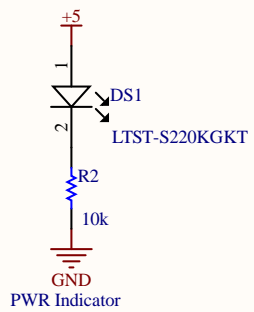


D

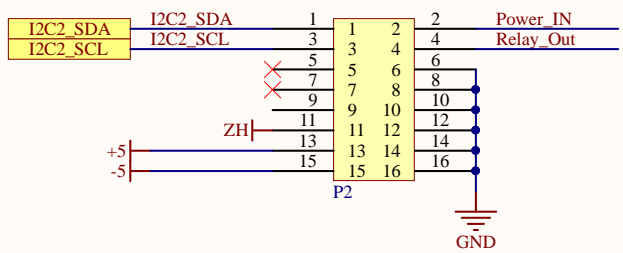
BATTERY CONNECTIONS
P1 BATTERY
2 A - NEGATIVE
3 B - TEMPERATURE
4 C - DATA
5 D - CLOCK
1 E - POSITIVE
N/C F - KEY

Mating Pigtail: LIKE MMSST-02-20-F-12.00-S-K

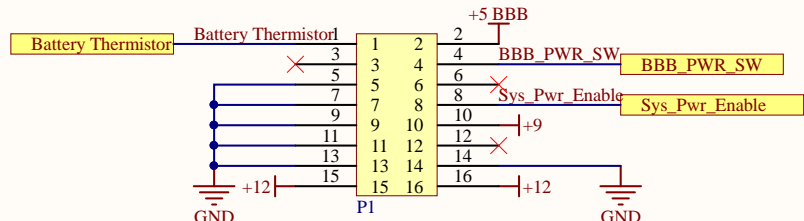
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3



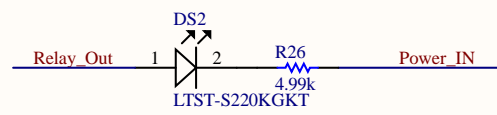
A




B

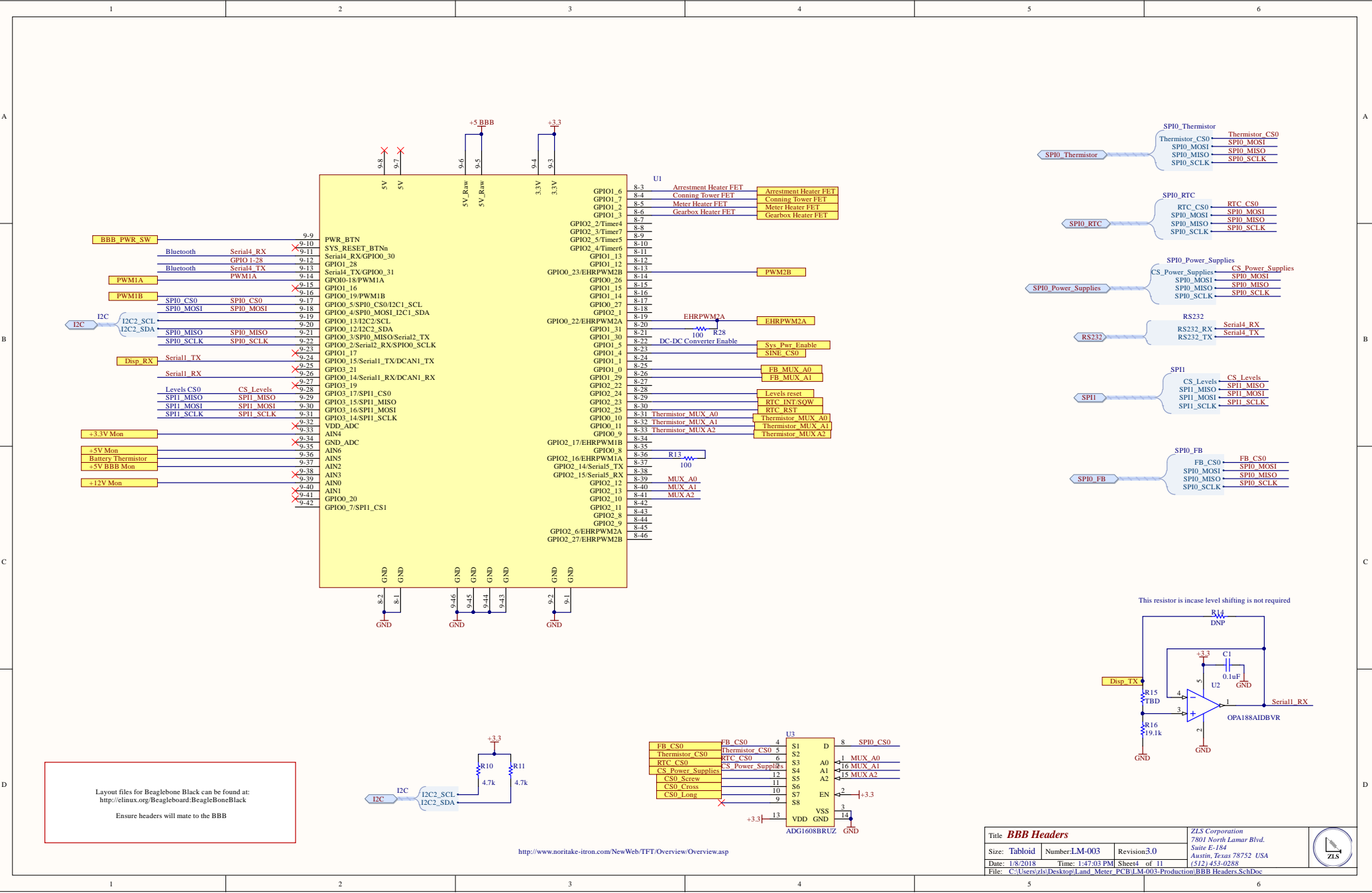


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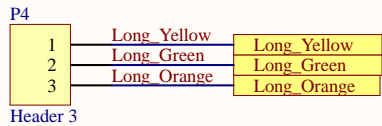
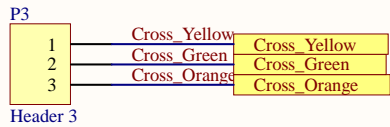


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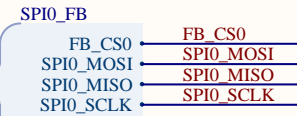
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Size: Orcad A	Number: LM-003	Revision: 3.0		
Date: 1/8/2018	Time: 1:47:03 PM	Sheet 1 of 11		
File: C:\Users\zls\Desktop\Land_Meter_PCB\LM-003-Production\Power.SchDoc				



A



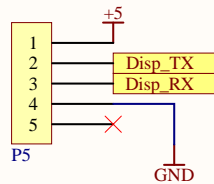
SPI0_FB



$$f(x) = 94974.5413538519 - 4696.967283124496x + 129.82663269538722x^2 - 2.618627915229906x^3 + 0.042544388235024x^4 - 0.0005976238111017604x^5 + 0.00000781963813533688x^6 - 9.536309770896e-8x^7 + 9.6915670491e-10x^8 - 7.19177773e-12x^9 + 3.497936e-14x^{10} - 9.821e-17x^{11} + 1.2e-19x^{12}$$

Thermistor Temperature Calculation

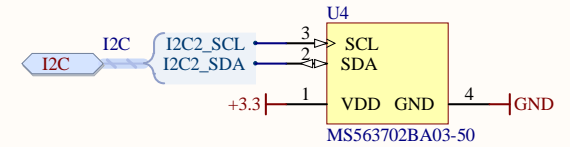
B



SPI1



Level Comms

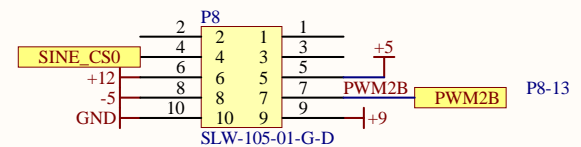
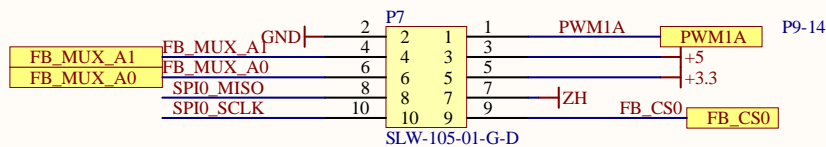


A

B

C

Feedback Board



C

D

Mating Pigtail: MMSST-04-28-F-12.00-S-K

Title **Connectors**

Size: Orcad A Number: LM-003 Revision: 3.0

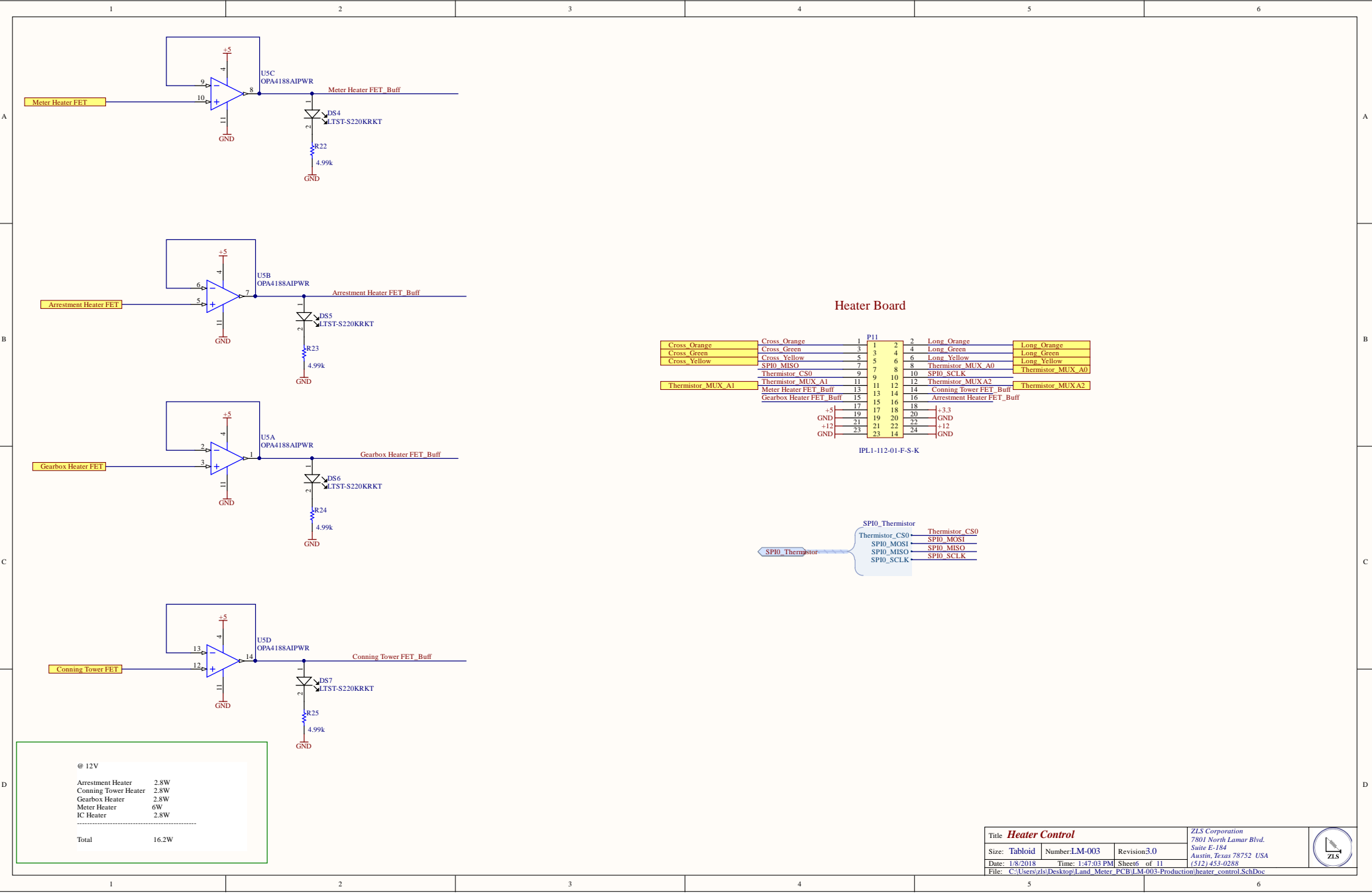
Date: 1/8/2018 Time: 1:47:03 PM Sheet 5 of 11

File: C:\Users\zls\Desktop\Land_Meter_PCB\LM-003-Production\Connectors.SchDoc

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7801 North Lamar Blvd
Suite E-184
Austin, TX 78752
Phone: (512) 453-0288

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Mac\Documents
\Misc

D



Heater Board

P11			
Cross Orange	Cross Orange	1	2
Cross Green	Cross Green	3	4
Cross Yellow	Cross Yellow	5	6
SPI0_MISO	SPI0_MISO	7	8
Thermistor_CS0	Thermistor_CS0	9	10
Thermistor_MUX_A1	Thermistor_MUX_A1	11	12
Meter Heater FET_Buff	Meter Heater FET_Buff	13	14
Gearbox Heater FET_Buff	Gearbox Heater FET_Buff	15	16
+5	+5	17	18
GND	GND	19	20
+12	+12	21	22
GND	GND	23	24

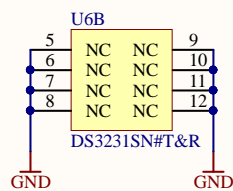
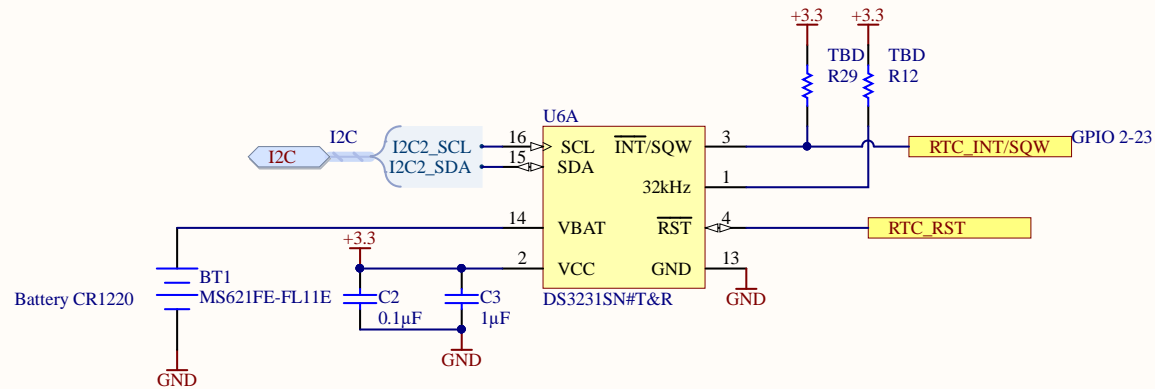
IPL1-112-01-F-S-K



@ 12V	
Arrestment Heater	2.8W
Conning Tower Heater	2.8W
Gearbox Heater	2.8W
Meter Heater	6W
IC Heater	2.8W

Total	16.2W





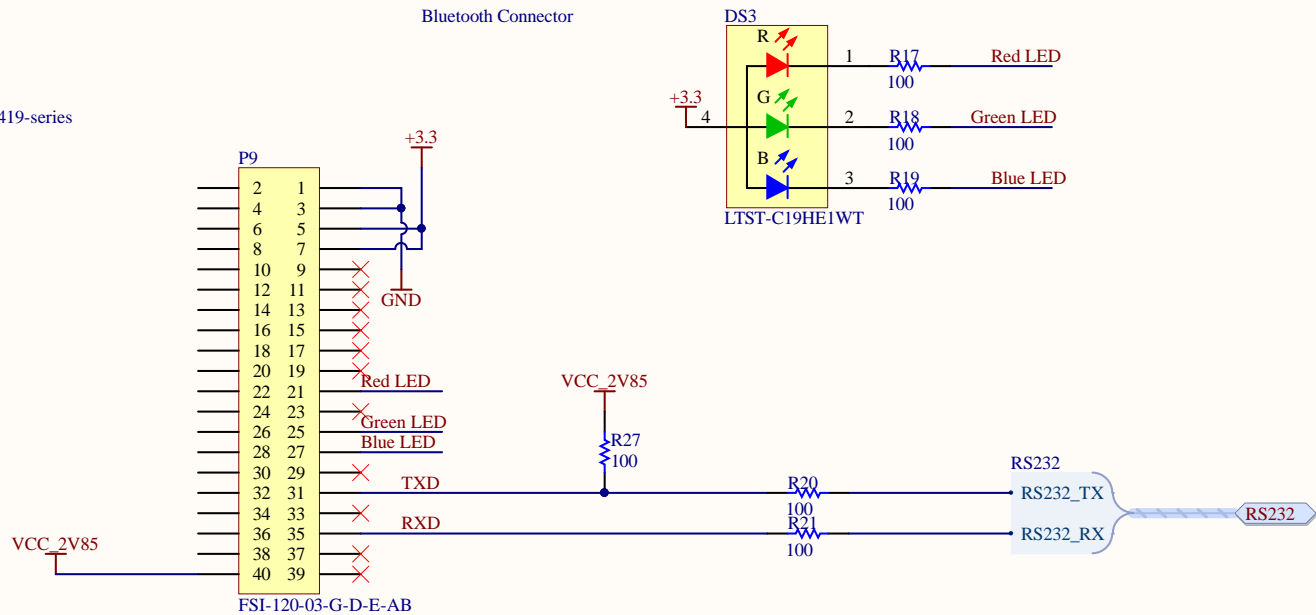
<https://learn.adafruit.com/adafruit-ds3231-precision-rtc-breakout/overview>

Title <i>Real Time Clock</i>			ZLS Corporation 7801 North Lamar Blvd Suite E-184 Austin, TX 78752 Phone: (512) 453-0288	Cannot open file Z:\jackwalker On My Mac\Documents \Misc
Size: Orcad A	Number: LM-003	Revision: 3.0		
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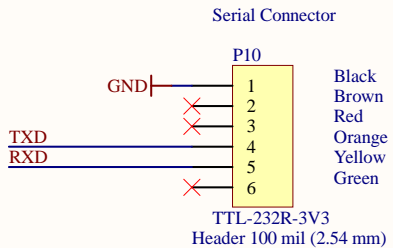
A

CB-OBS418i-4
<https://www.u-blox.com/en/product/obs418-obs419-series>

B



C



D

Title RS232			ZLS Corporation 7801 North Lamar Blvd Suite E-184 Austin, TX 78752 Phone: (512) 453-0288	Cannot open file Z:\jackwalker On My Mac\Documents \Misc
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Date: 1/8/2018	Time: 1:47:04 PM	Sheet 9 of 11		
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