


BATTERY CONNECTIONS

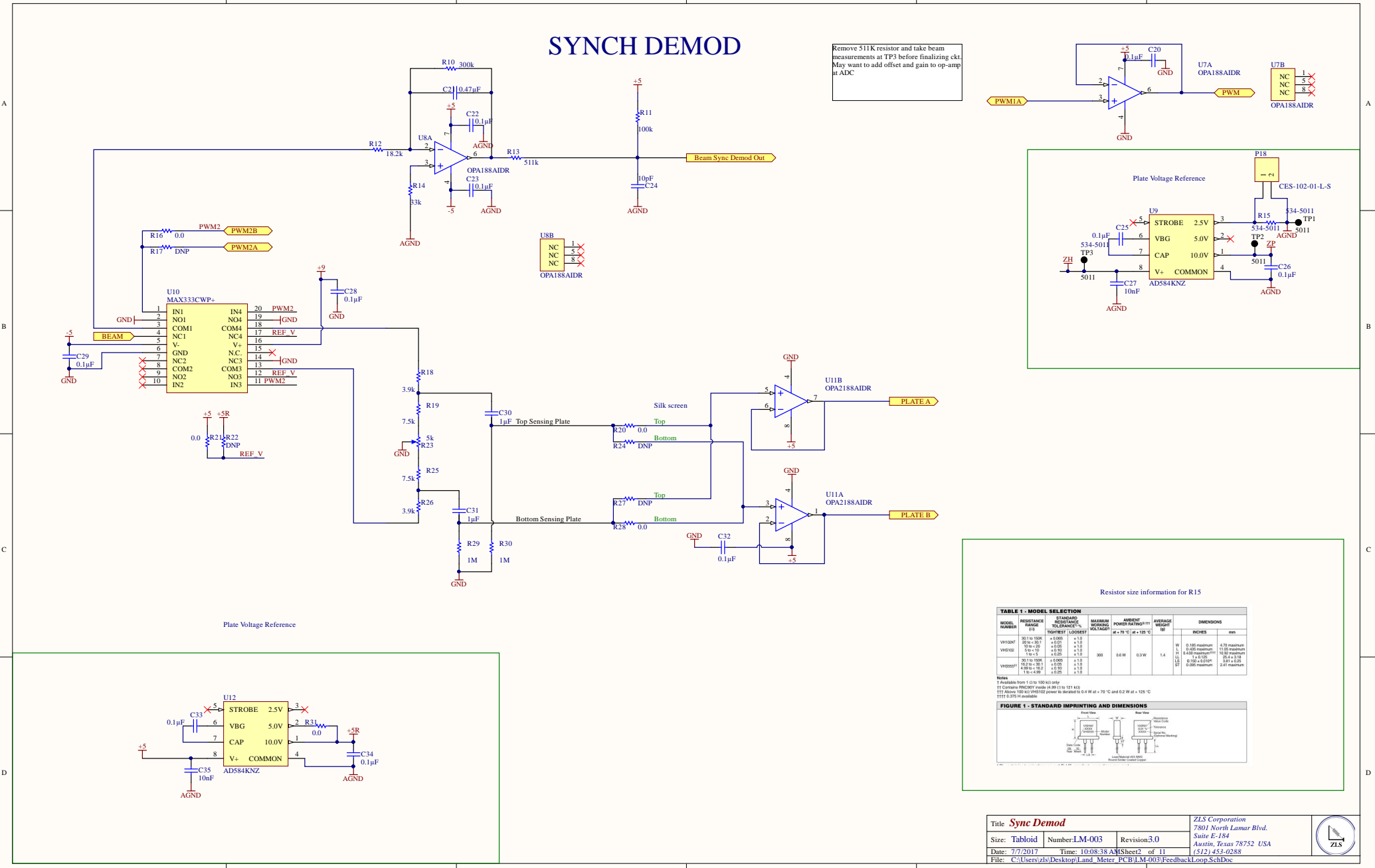
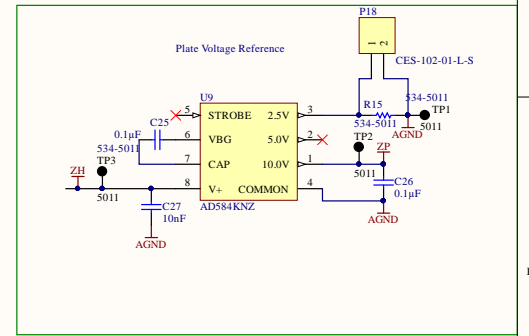
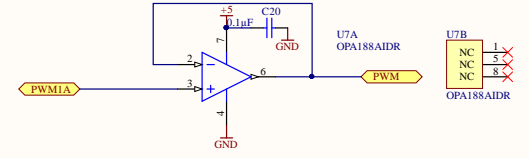
P1	BATTERY
2	A - NEGATIVE
3	B - TEMPERATURE
4	C - DATA
5	D - CLOCK
1	E - POSITIVE
N/C	F - KEY

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

Title <b>Power</b>			ZLS Corporation 7801 North Lamar Blvd. Suite E-184 Austin, Texas 78752 USA (512) 453-0288	
Size: <b>Tabloid</b>	Number: <b>LM-003</b>	Revision: <b>3.0</b>		
Date: 7/7/2017	Time: 10:08:37 AM		Sheet: of 11	
File: C:\Users\zls\Desktop\Land_Meter_PCB\LM-003\Power.SchDoc				

# SYNCH DEMOD

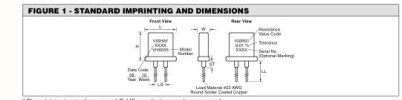
Remove 511K resistor and take beam measurements at TP3 before finalizing ckt. May want to add offset and gain to op-amp at ADC.



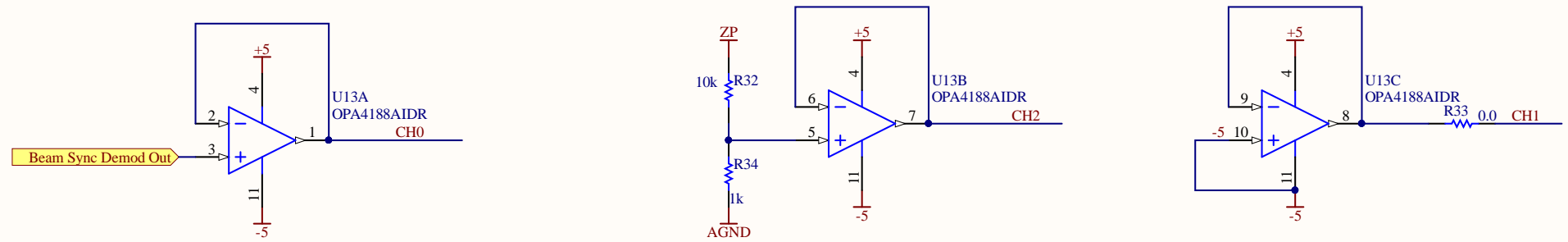
Resistor size information for R15

TABLE 1 - MODEL SELECTION									
MODEL NUMBER	RESISTANCE RANGE (Ω)	STANDARD RESISTANCE TOLERANCE %	MAXIMUM VOLTAGE	MAXIMUM POWER (W)	AVERAGE WEIGHT (g)	DIMENSIONS			
						INCHES		MM	
VH0100T	10 to 100K	± 0.05%	± 1.0			W	0.185 maximum	0.75 maximum	
VH0100T	10 to 100K	± 0.1%	± 1.0			L	0.400 maximum	11.00 maximum	
VH0100T	10 to 100K	± 0.1%	± 1.0			W	0.185 maximum	0.75 maximum	
VH0100T	10 to 100K	± 0.1%	± 1.0			L	0.400 maximum	11.00 maximum	
VH0100T	10 to 100K	± 0.1%	± 1.0			W	0.185 maximum	0.75 maximum	
VH0100T	10 to 100K	± 0.1%	± 1.0			L	0.400 maximum	11.00 maximum	
VH0100T	10 to 100K	± 0.1%	± 1.0			W	0.185 maximum	0.75 maximum	
VH0100T	10 to 100K	± 0.1%	± 1.0			L	0.400 maximum	11.00 maximum	
VH0100T	10 to 100K	± 0.1%	± 1.0			W	0.185 maximum	0.75 maximum	

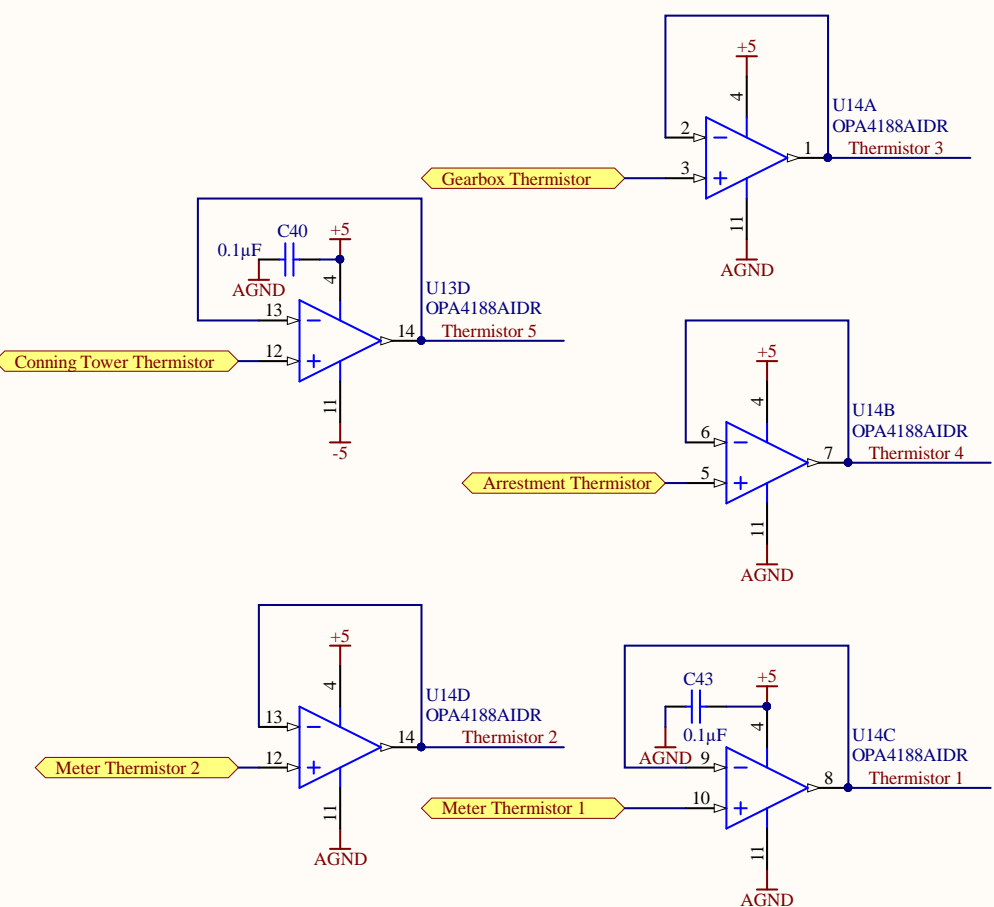
Notes:  
T: Available from 1.0 to 100 kΩ only.  
TT: Contains PRECISION models 0.01% to 100 kΩ.  
TTT: Above 100 kΩ, VH0100T power is derated to 0.4 W at +75 °C and 0.2 W at +125 °C.  
TTT: 0.275" is available.



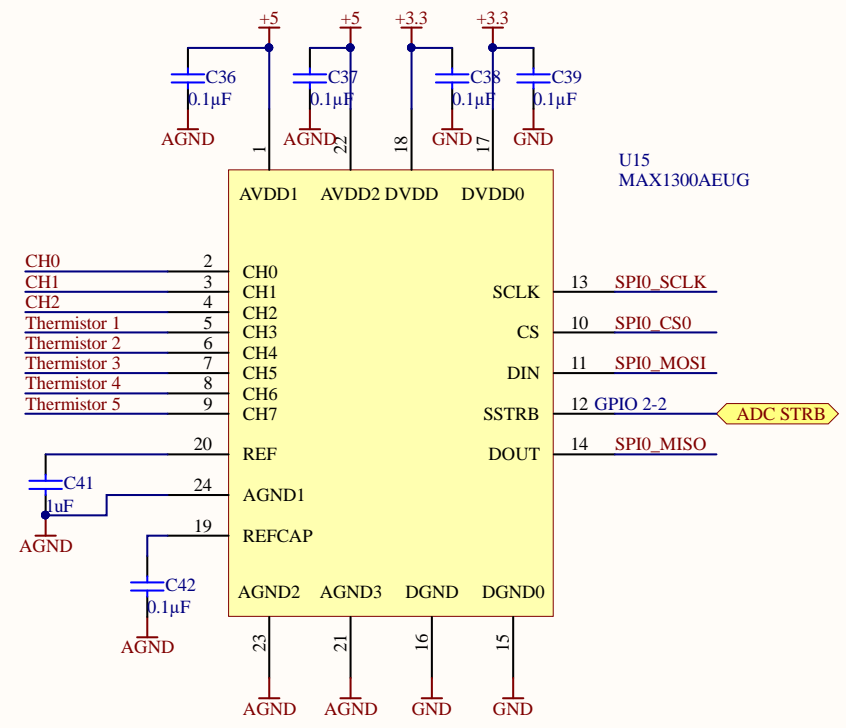
A



B




C

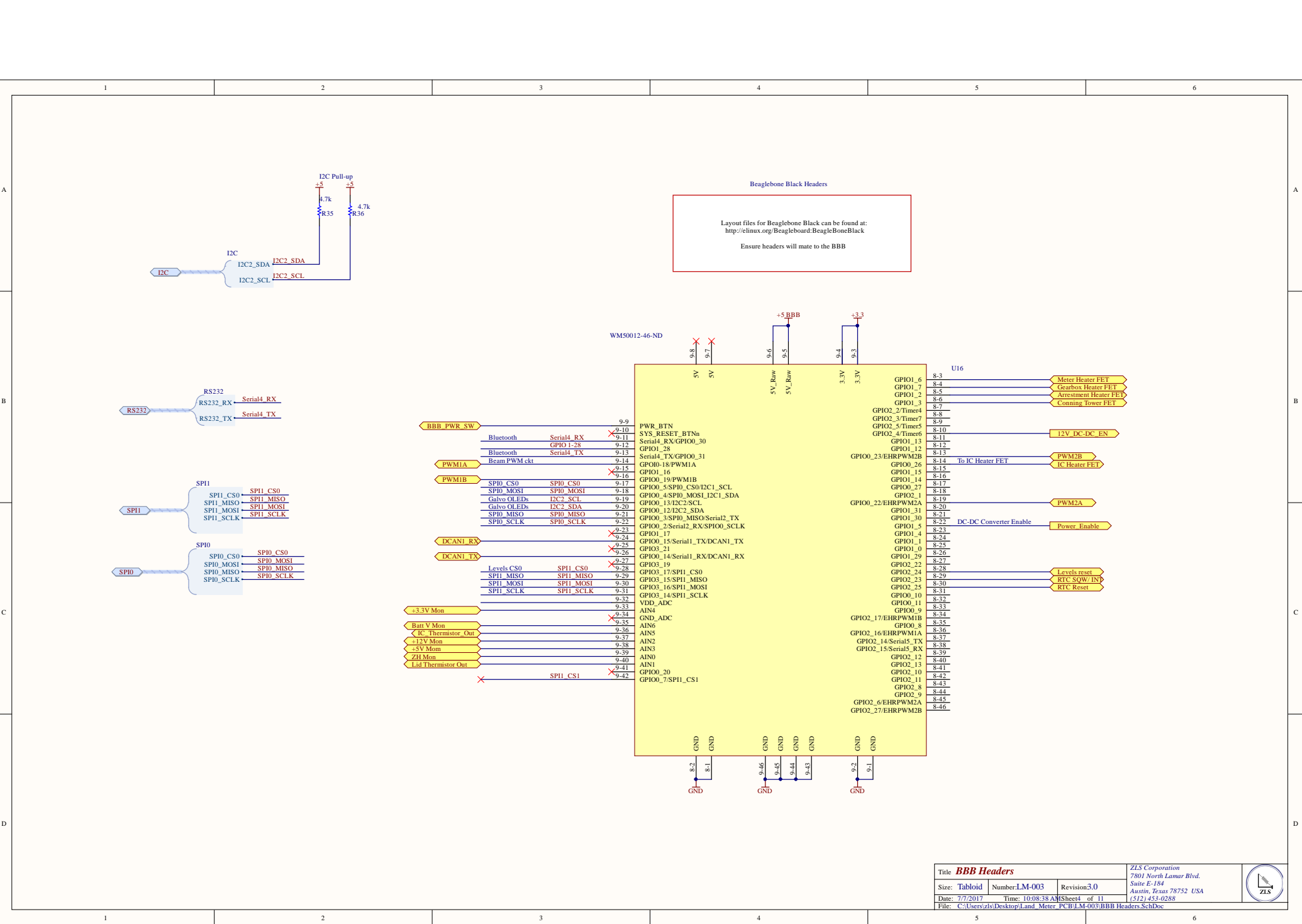


D

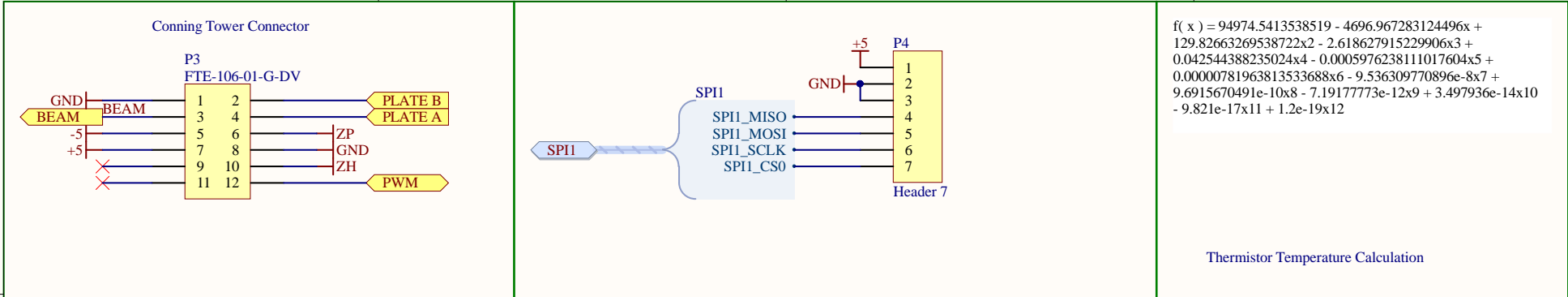


Voltage to freq conversion:  $Y = 11.27 * X - 32.95$   
Freq to voltage conversion:  $Y = 0.08873 * X + 2.924$

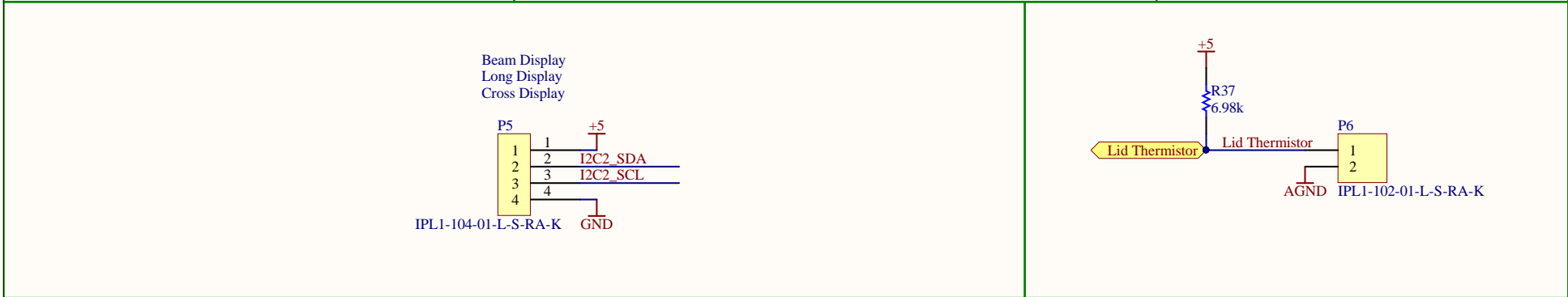
Title <b>ADC</b>			<div>ZLS Corporation 7801 North Lamar Blvd. Suite E-184 Austin, Texas 78752 USA (512) 453-0288</div> <div></div>
Size: <b>Orcad A</b>	Number: <b>LM-003</b>	Revision: <b>3.0</b>	
Date: <b>7/7/2017</b>	Time: <b>10:08:38 AM</b>	Sheet <b>3</b> of <b>11</b>	
File: <b>C:\Users\zls\Desktop\Land_Meter_PCB\LM-003\ADC.SchDoc</b>			



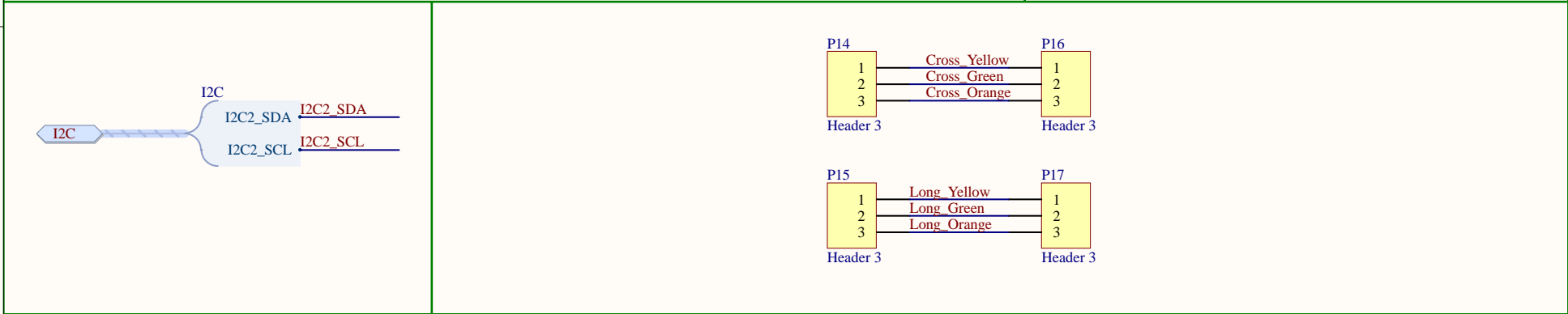
A



B

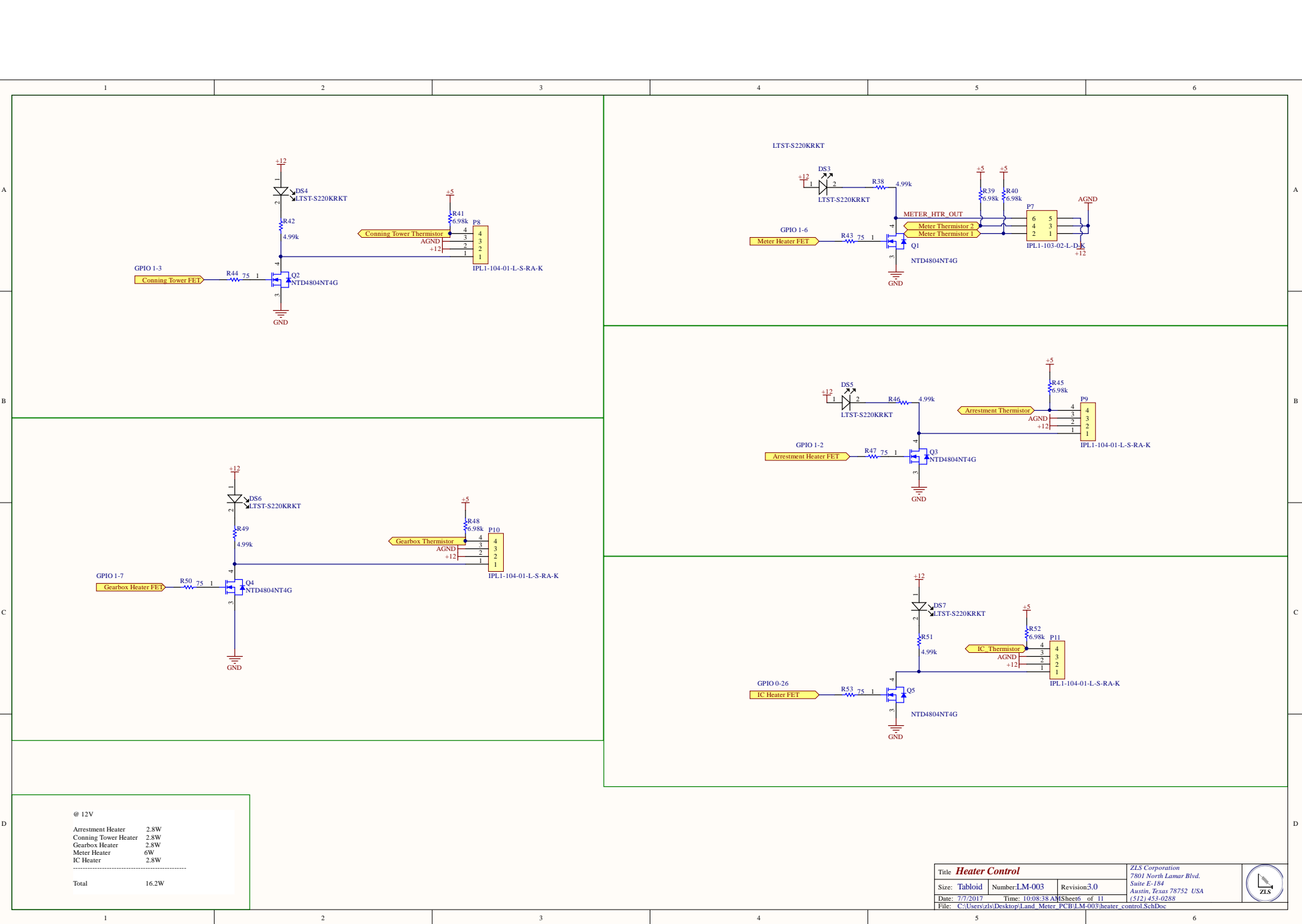


C

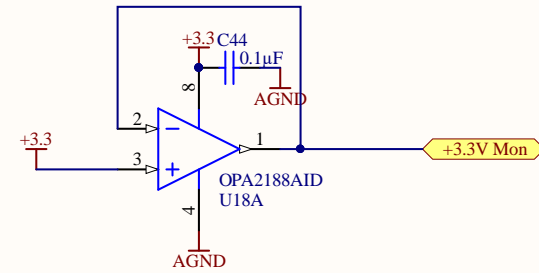
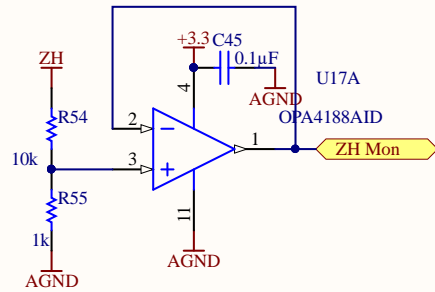


D

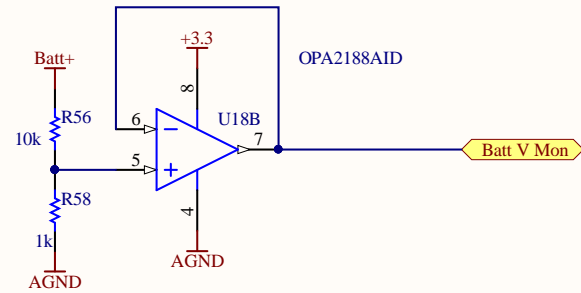
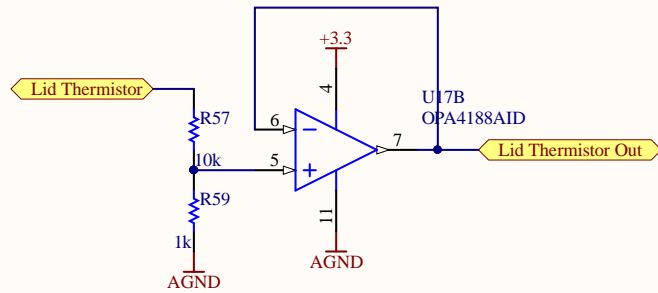
Title <i>Connectors</i>			
Size: Orcad A	Number:LM-003	Revision:3.0	
Date: 7/7/2017 Time: 10:08:38 AM Sheet5 of 11			
File: C:\Users\zls\Desktop\Land_Meter_PCB\LM-003\Connectors.SchDoc			
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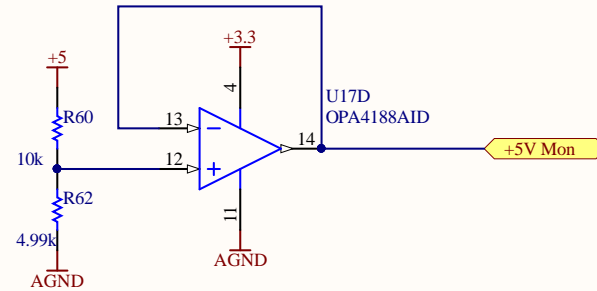
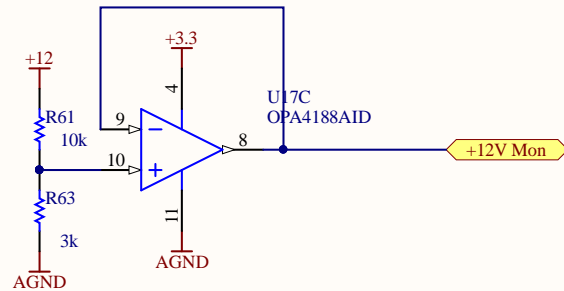
A



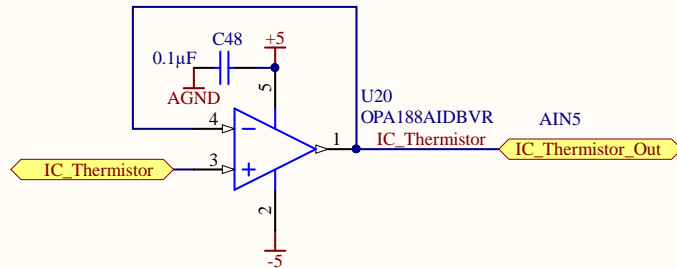
B



C



D

Title **Power Monitor**

Size: Orcad A

Number: LM-003

Revision: 3.0

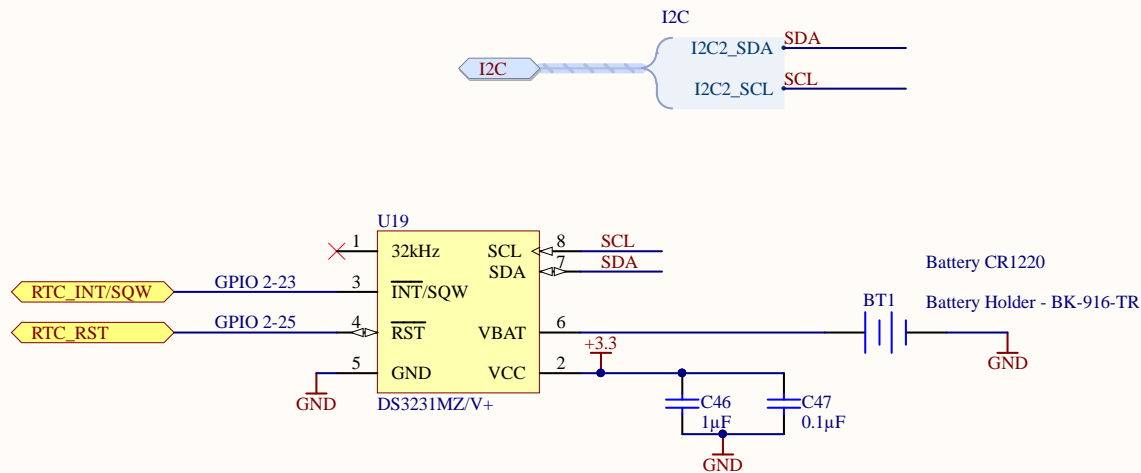
Date: 7/7/2017

Time: 10:08:38 AM Sheet 7 of 11


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File: C:\Users\zls\Desktop\Land\_Meter\_PCB\LM-003\Power Monitor.SchDoc

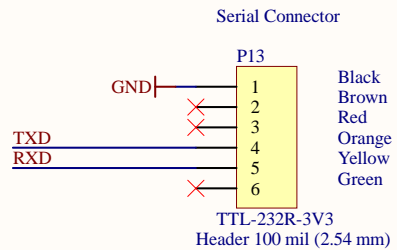
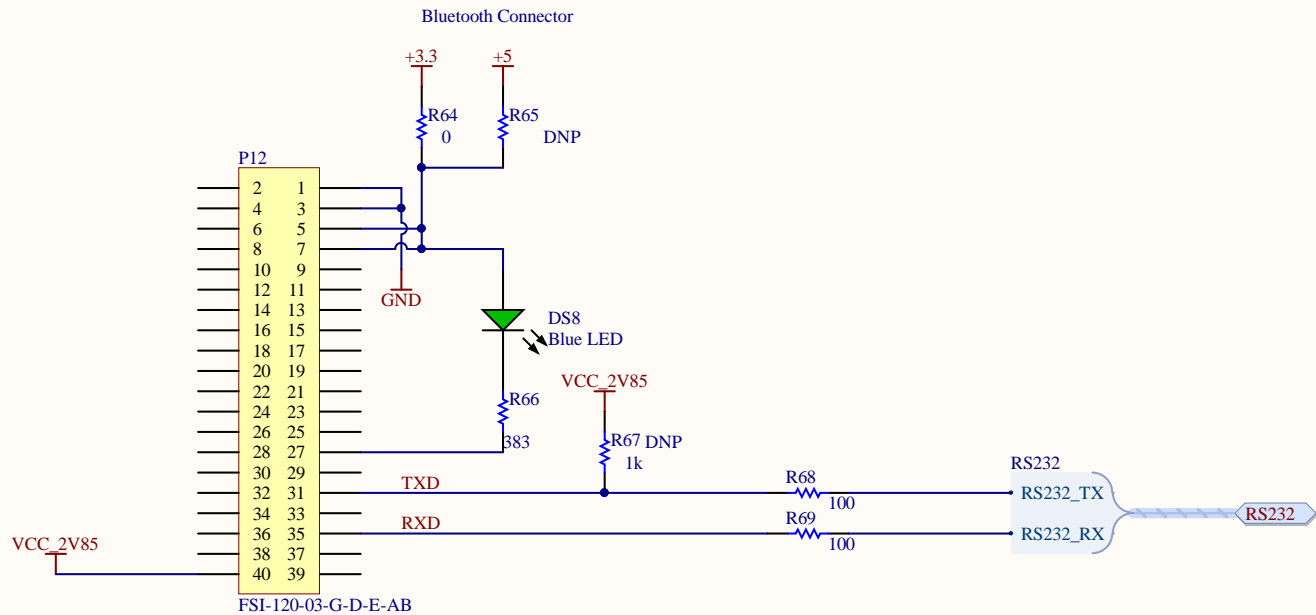





<https://learn.adafruit.com/adafruit-ds3231-precision-rtc-breakout/overview>

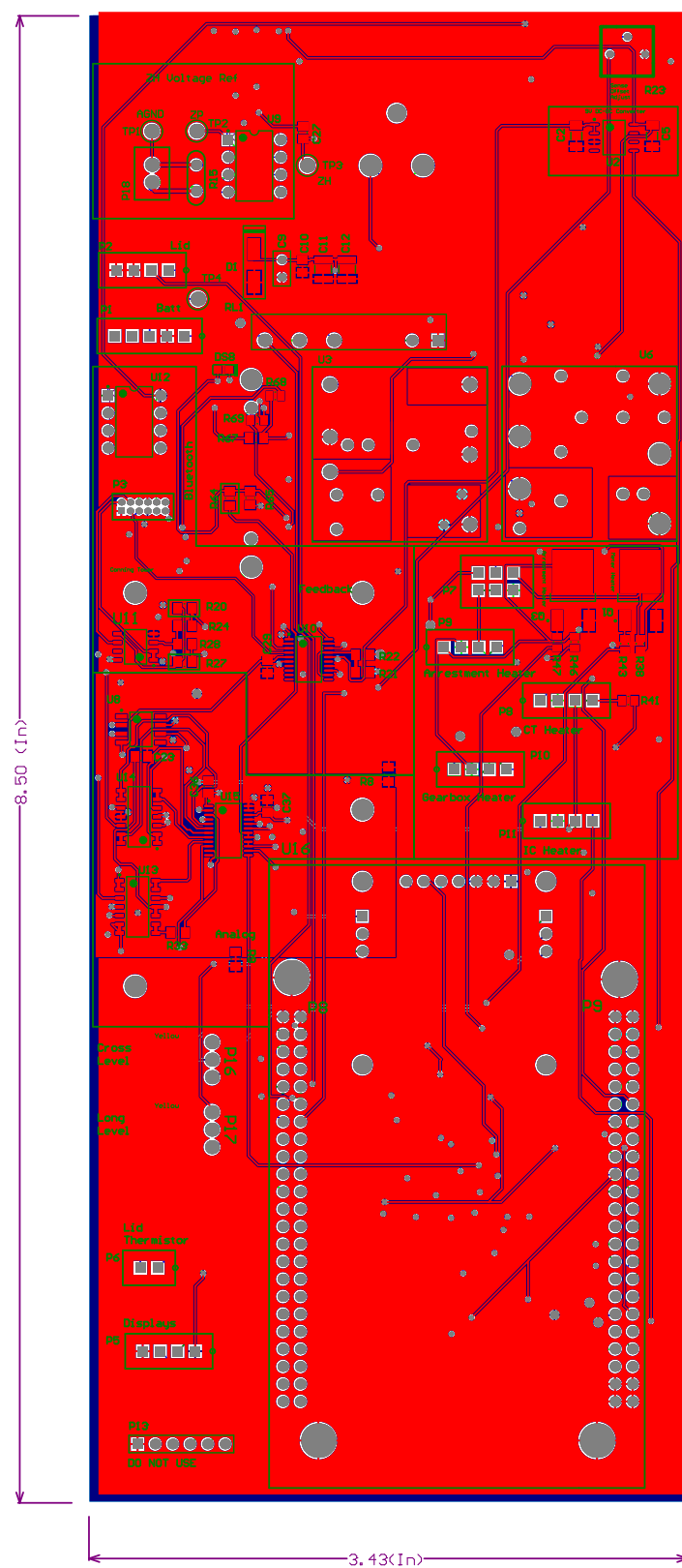
Title <i><b>Real Time Clock</b></i>			<div>ZLS Corporation 7801 North Lamar Blvd. Suite E-184 Austin, Texas 78752 USA (512) 453-0288</div> <div></div>
Size: <b>Orcad A</b>	Number: <b>LM-003</b>	Revision: <b>3.0</b>	
Date: <b>7/7/2017</b> Time: <b>10:08:38 AM</b>		Sheet <b>8</b> of <b>11</b>	
File: <b>C:\Users\zls\Desktop\Land_Meter_PCB\LM-003\Real Time Clock.SchDoc</b>			





Title <b>RS232</b>			<div>ZLS Corporation 7801 North Lamar Blvd. Suite E-184 Austin, Texas 78752 USA (512) 453-0288</div> <div></div>
Size: <b>Orcad A</b>	Number: <b>LM-003</b>	Revision: <b>3.0</b>	
Date: <b>7/7/2017</b>	Time: <b>10:08:38 AM</b> Sheet <b>9</b> of <b>11</b>		
File: <b>C:\Users\zls\Desktop\Land_Meter_PCB\LM-003\RS232.SchDoc</b>			





Boards