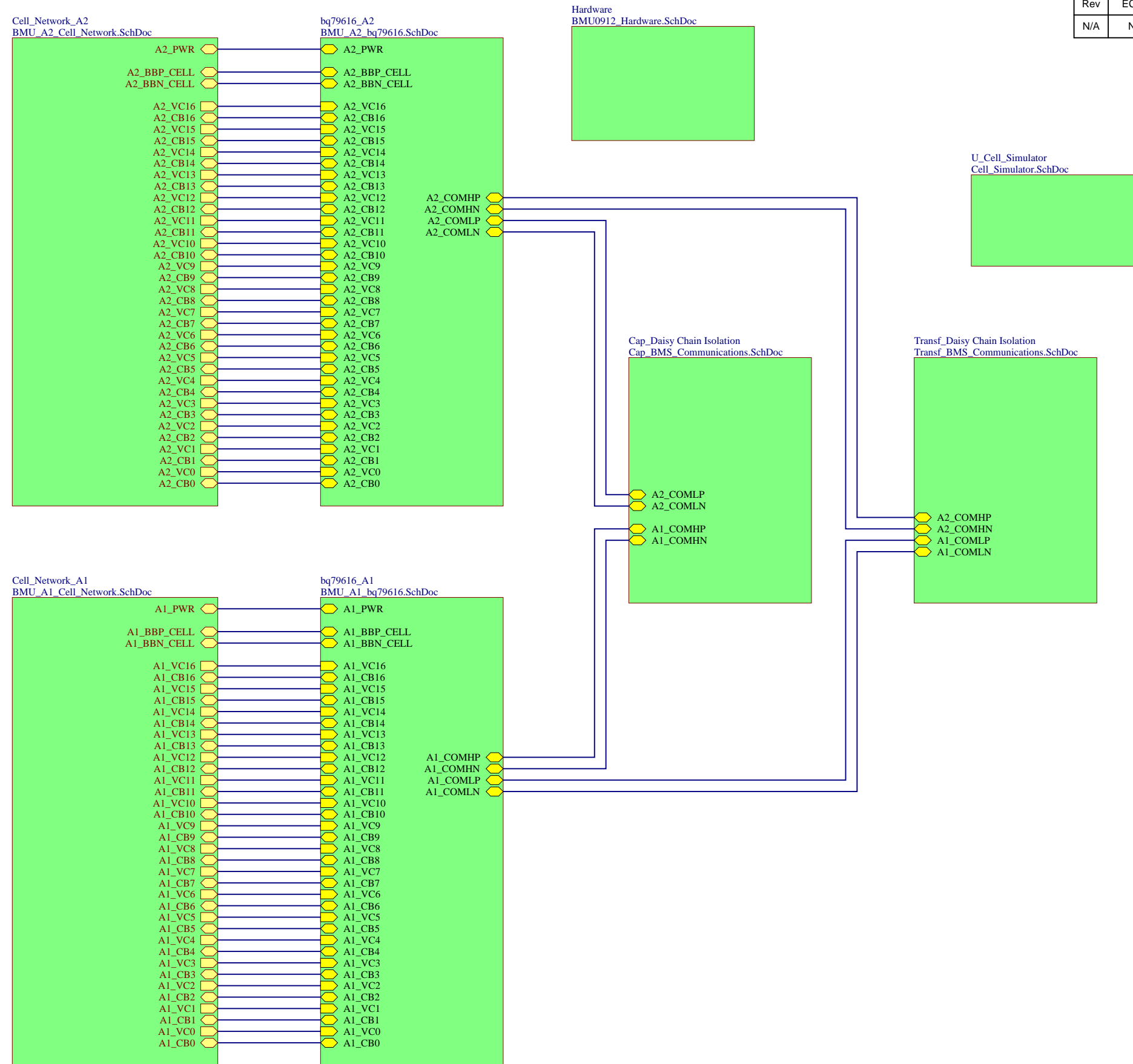


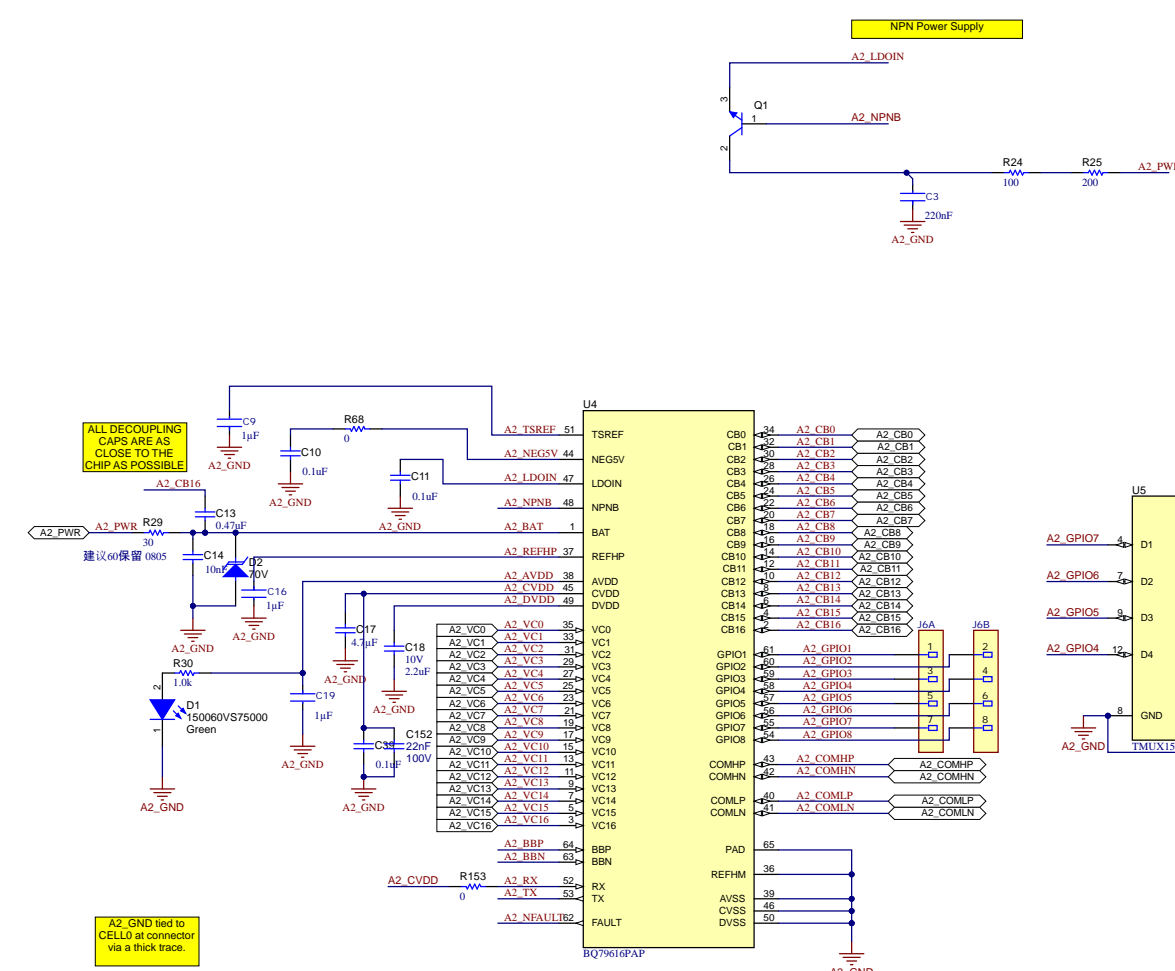
Revision History

Rev	ECN #	Approved Date	Approved by	Notes
N/A	N/A	N/A	N/A	N/A

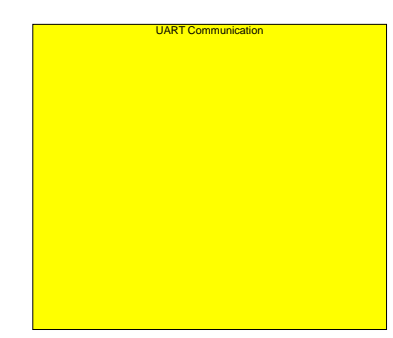


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Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 2023/10/8	 http://www.ti.com © Texas Instruments 2018
TID #: TIDA-010271	Project Title: Stackable battery management unit reference design		
Number: TIDA-010271	Rev: E1	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 1 of 9	
Drawn By:	File: BMU_BQ79616_coversheet.SchDoc	Size: B	
Engineer: Enter name of project lead	Contact: http://www.ti.com/support		



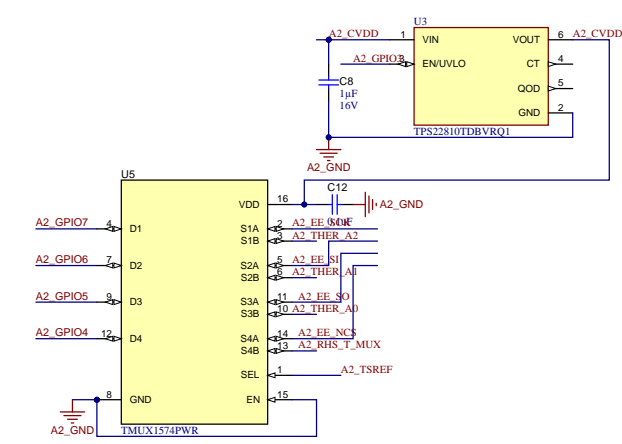
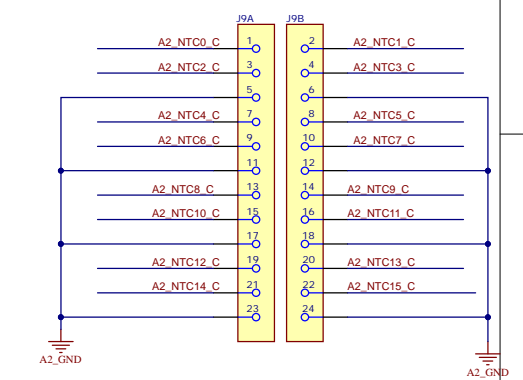
J3 Pin Description
 5 TX - to microcontroller UART RX
 4 RX - to microcontroller UART TX
 2 FAULTn - to microcontroller GPIO
 1 A2_GND - shared A2_GND with microcontroller



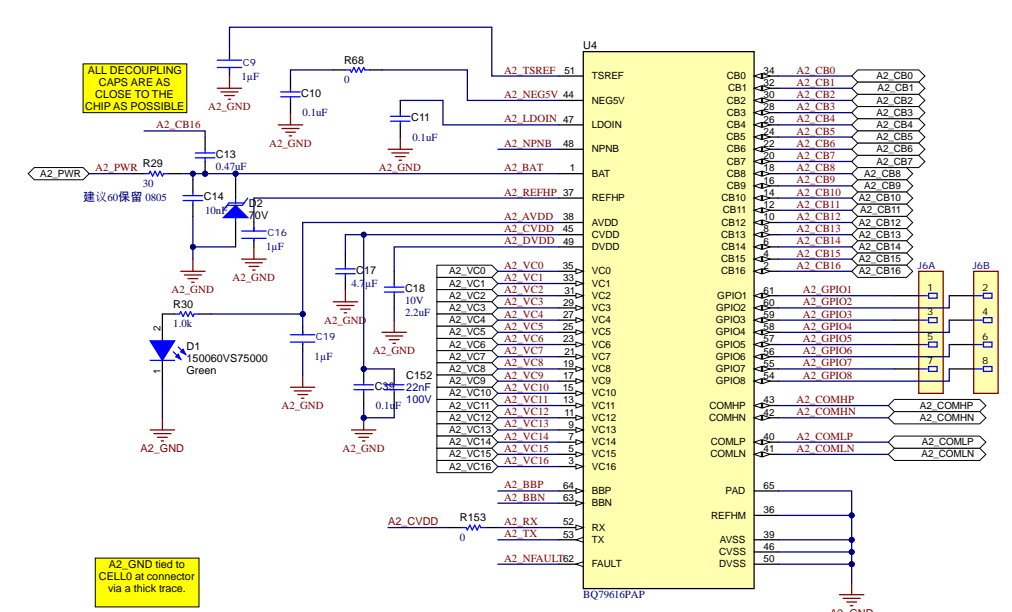
J17 Pin Description
 A2_THER_A2 1
 A2_THER_A1 2
 A2_THER_A0 3
 A2_RHS_T_MUX4

J1 Pin Description
 1 A2_CVDD
 2 A2_RHS_T_MUX
 3 A2_GPIO8 A2_RHS_H
 4 A2_GND

J17 Pin Description
 8 TX - to microcontroller UART RX
 7 RX - to microcontroller UART TX
 3 FAULTn - to microcontroller GPIO
 5 A2_GND - shared A2_GND with microcontroller
 6 USB2ANY 3.3V



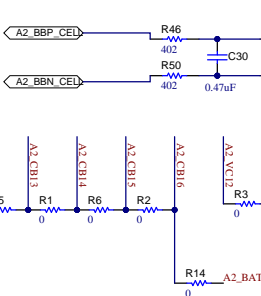
Jumpers to connect GPIOs to resistor divider and thermistor for temperature measurements.



ALL DECOUPLING CAPS ARE AS CLOSE TO THE CHIP AS POSSIBLE

A2_GND tied to CELL0 at connector via a thick trace.

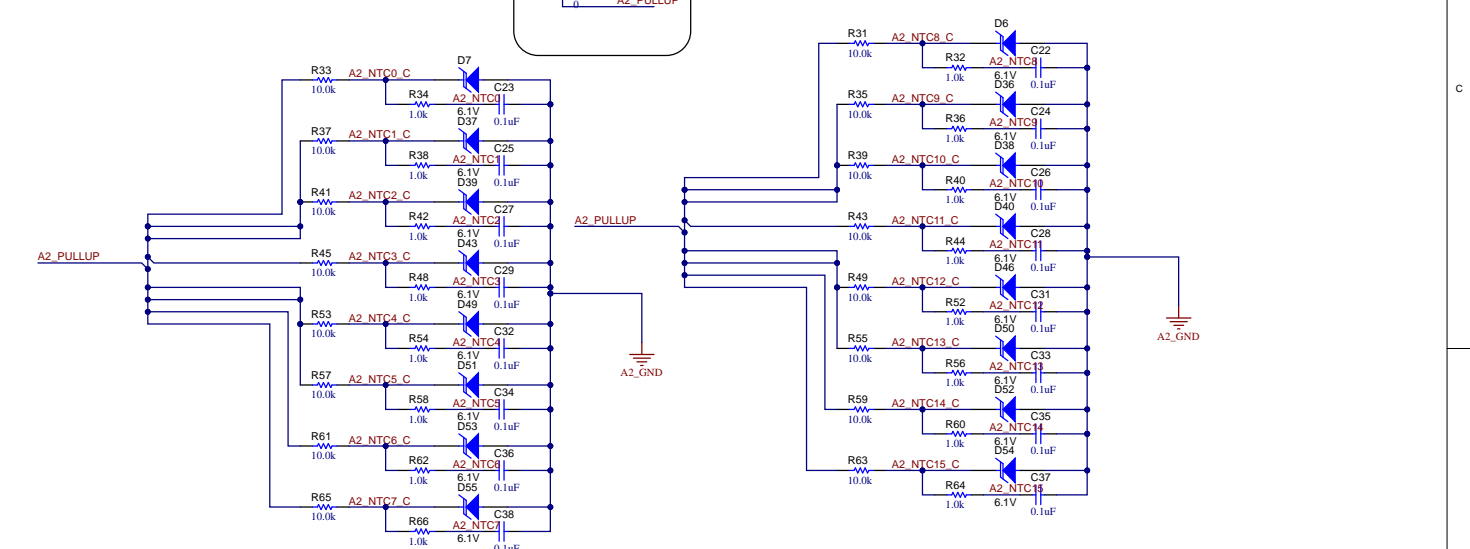
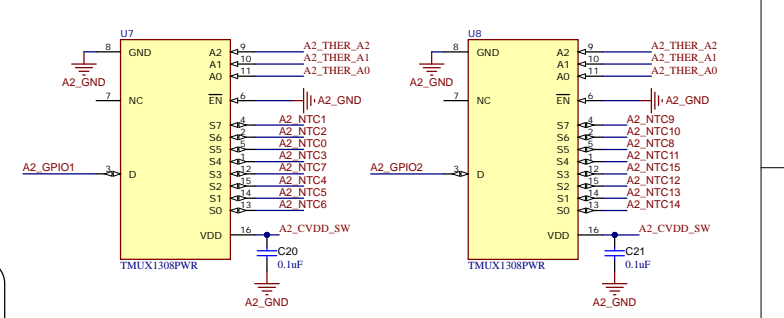
BBP/BBN Bus Bar



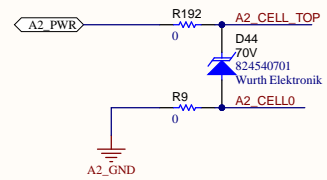
Resistors for Lower Cell Count Applications (614, 612)

Table 6-1. TMUX1308 Truth Table

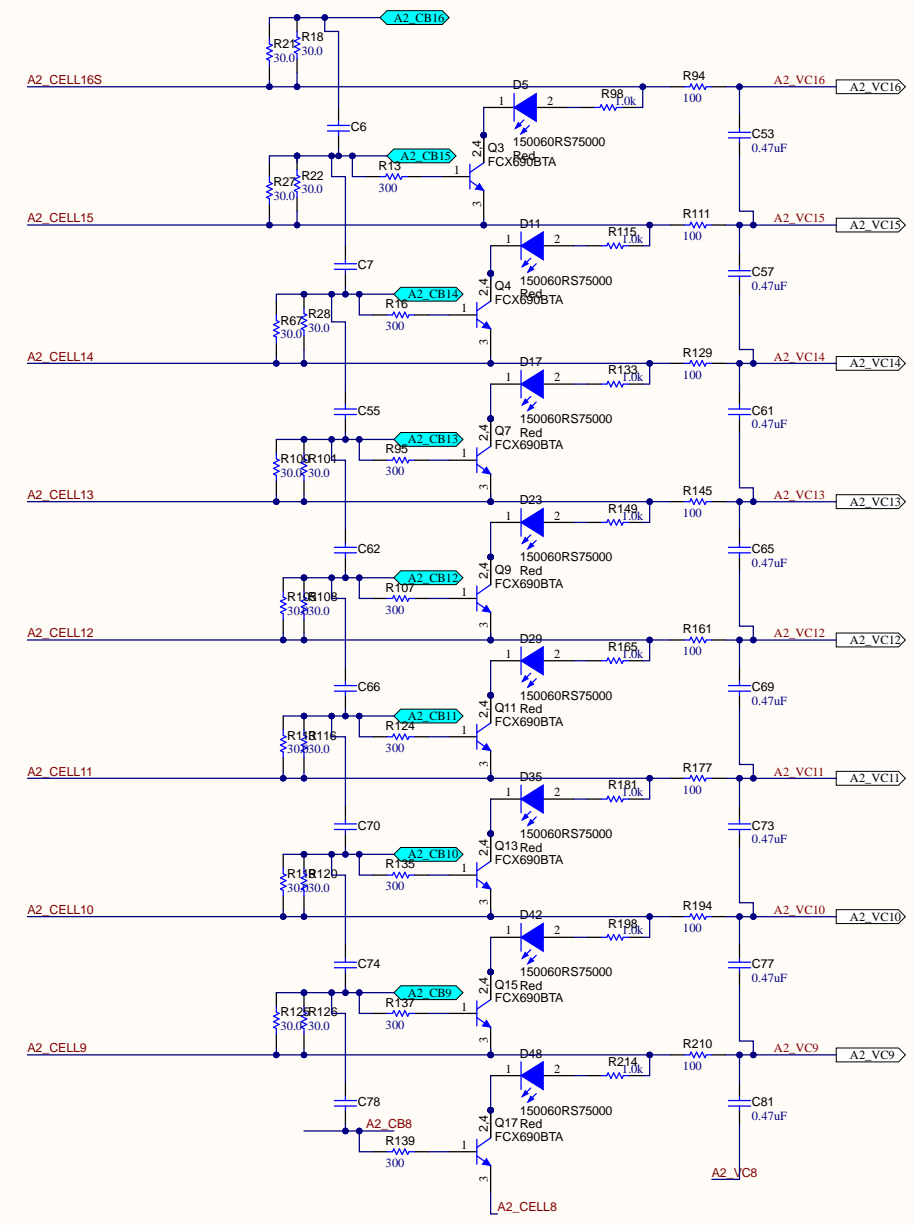
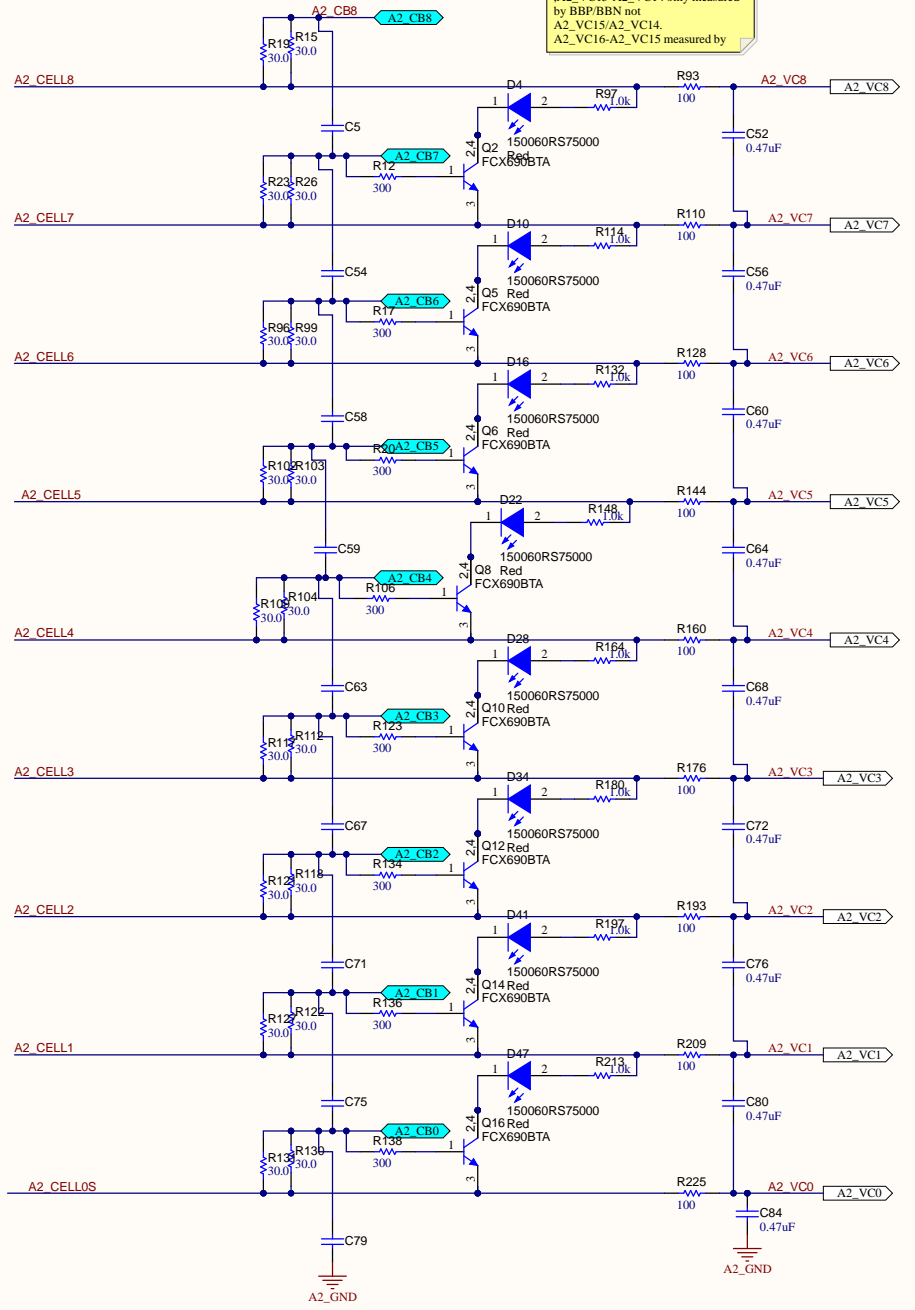
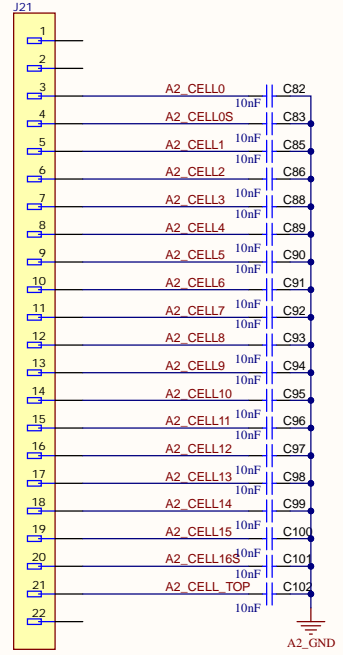
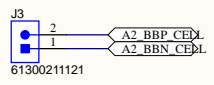
EN	SEL	Selected Source Pins Connected To Drain Pins (Dx)
0	0	S1A connected to D1 S2A connected to D2 S3A connected to D3 S4A connected to D4
0	1	S1B connected to D1 S2B connected to D2 S3B connected to D3 S4B connected to D4
1	X	H-Z (OFF)



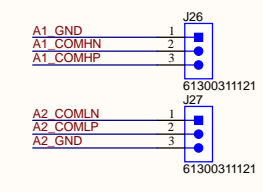
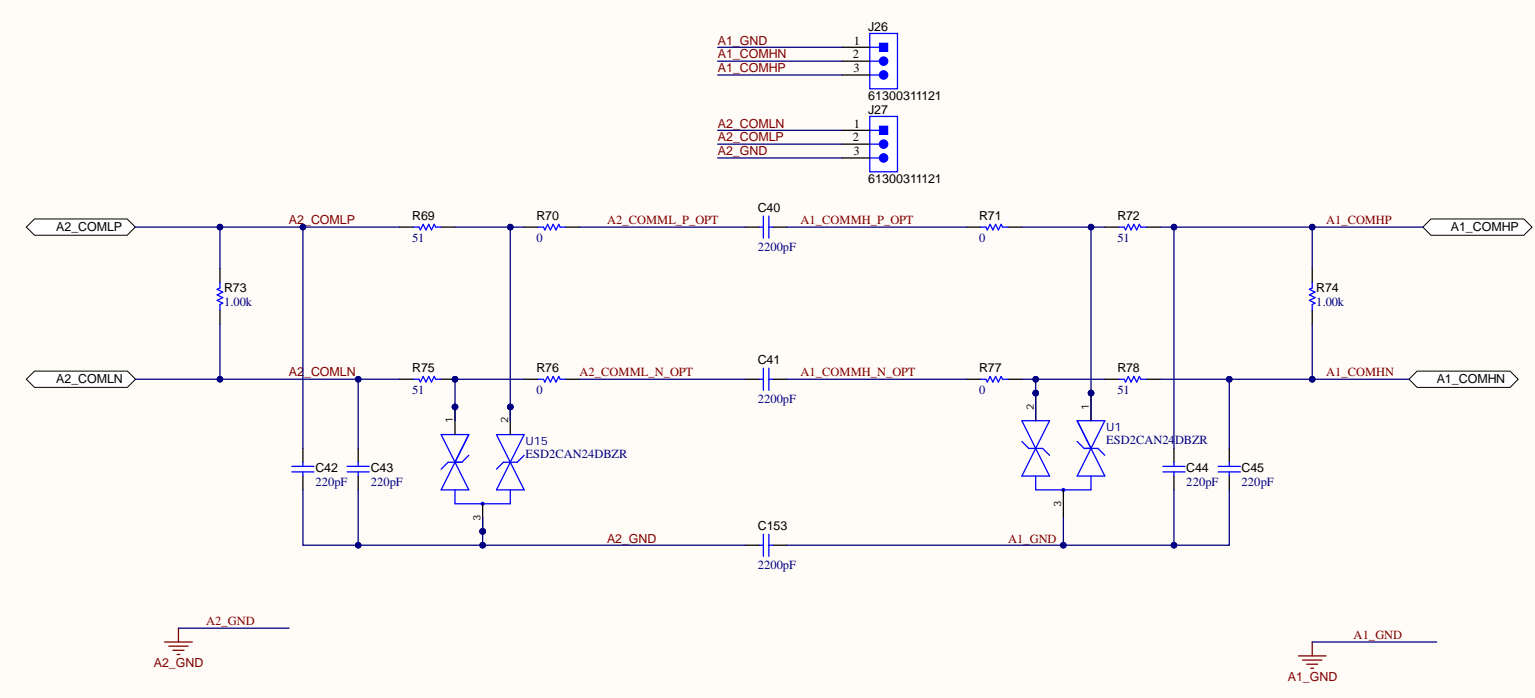
- 1 A2_CELL_TOP
- 2 A2_CELL16S
- 3 A2_CELL15
- 4 A2_CELL14
- 5 A2_CELL13
- 6 A2_CELL12
- 7 A2_CELL11
- 8 A2_CELL10
- 9 A2_CELL9
- 10 A2_CELL8
- 11 A2_CELL7
- 12 A2_CELL6
- 13 A2_CELL5
- 14 A2_CELL4
- 15 A2_CELL3
- 16 A2_CELL2
- 17 A2_CELL1
- 18 A2_CELL0S
- 19 A2_CELL0
- 20



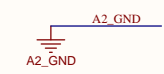
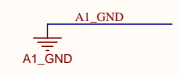
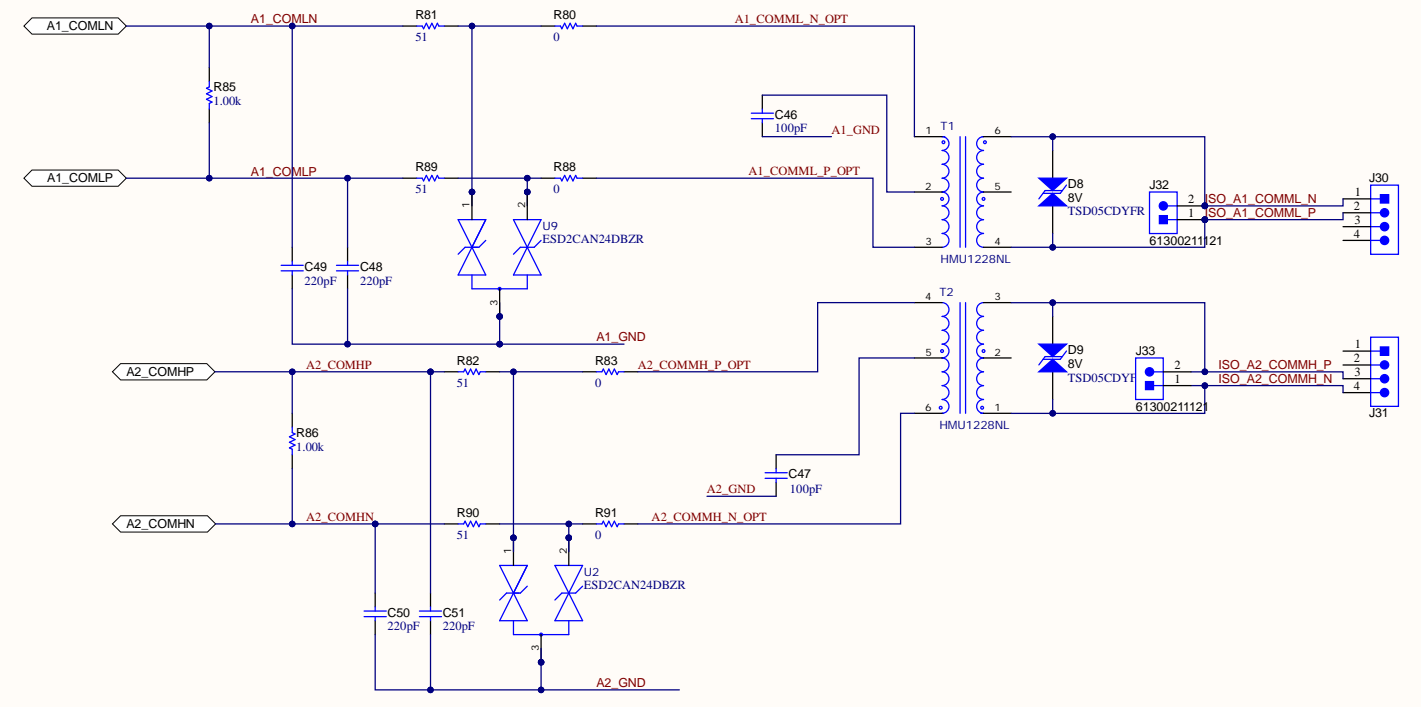
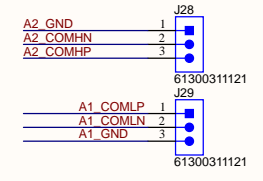
A
if faked A2_CELL applied
A2_VC15-A2_VC14 only measured
by BBP/BBN not
A2_VC15-A2_VC14
A2_VC16-A2_VC15 measured by



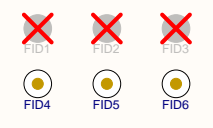
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Size	Number	Revision
C		
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Title		
Size	Number	Revision
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Date:	10/08/2023	Sheet of
File:	C:\Users\...Cap_BMS Communications	Drawn By:



Title		
Size	Number	Revision
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Date:	10/08/2023	Sheet of
File:	C:\Users\...Transf_BMS Communication	By:



PCB LOGO
Pb-Free Symbol

PCB LOGO
FCC disclaimer



Variant/Label Table	
Variant	Label Text
001	Production Variant

LBL1
PCB Label
THT-14-423-10
Size: 0.65" x 0.20"

~~ZZ1~~
This Assembly Note is for PCB labels only

~~ZZ2~~
These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ3
Assembly Note
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ4
Assembly Note
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

ZZ5
Assembly Note
Via in PADS must be filled

Title		
Size	Number	Revision
C		
Date:	10/08/2023	Sheet of
File:	C:\Users\...BMU0912_Hardware.SchDoc	Drawn By:

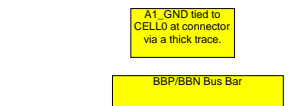
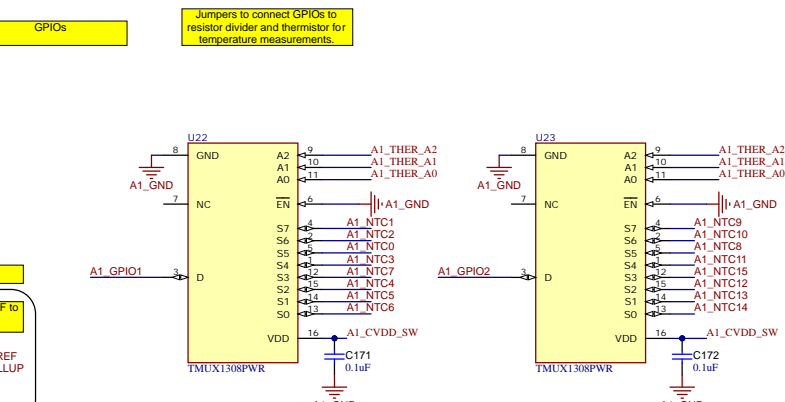
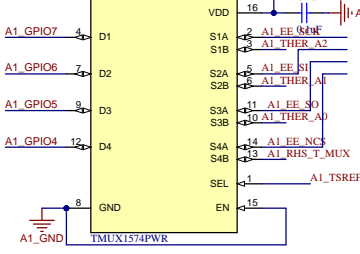
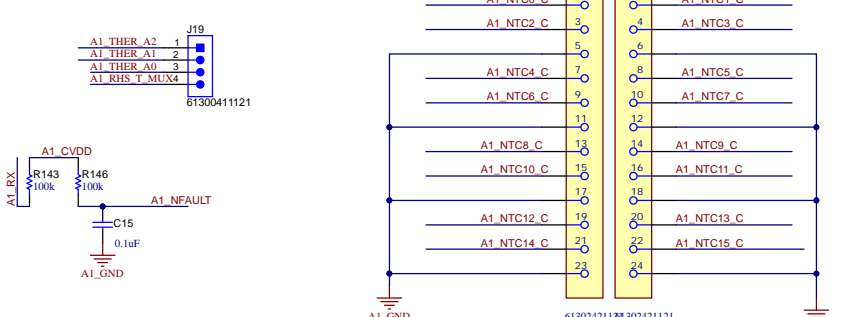
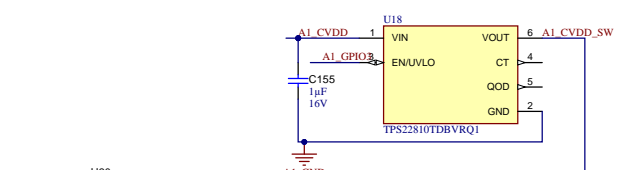
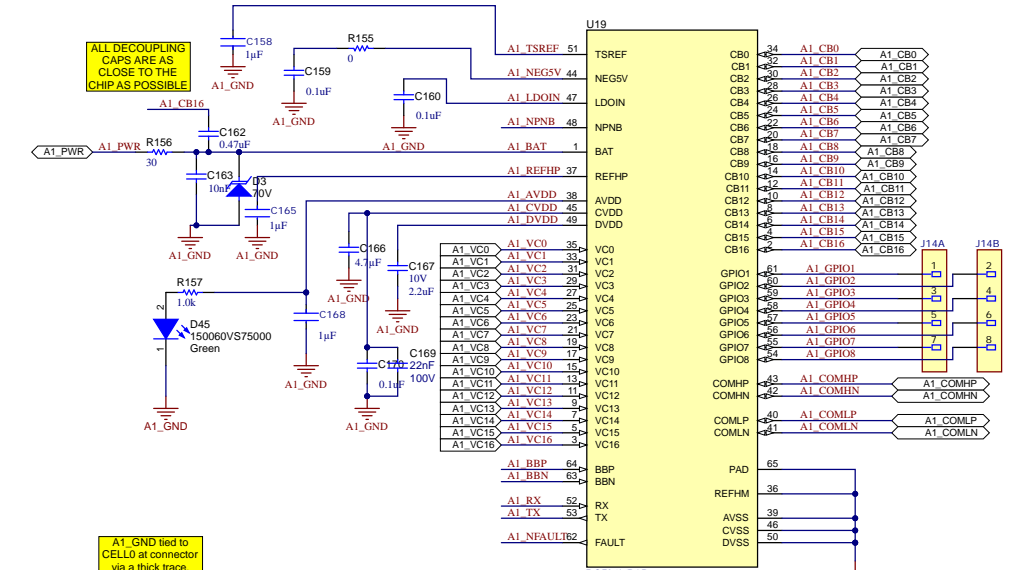
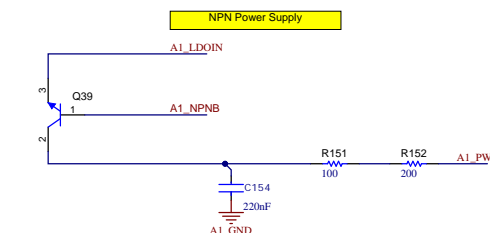
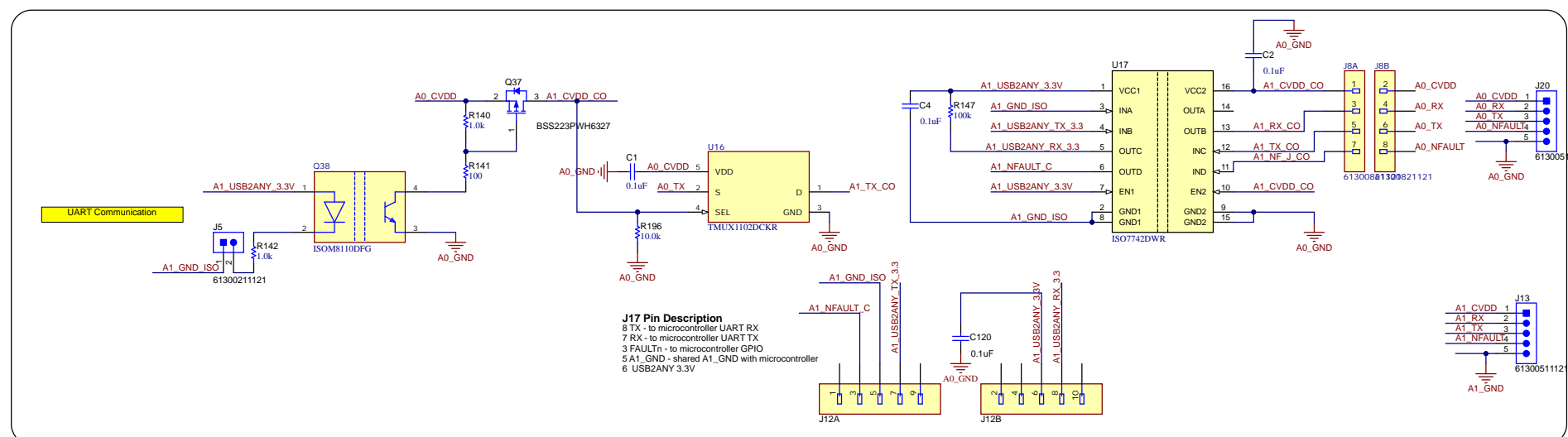
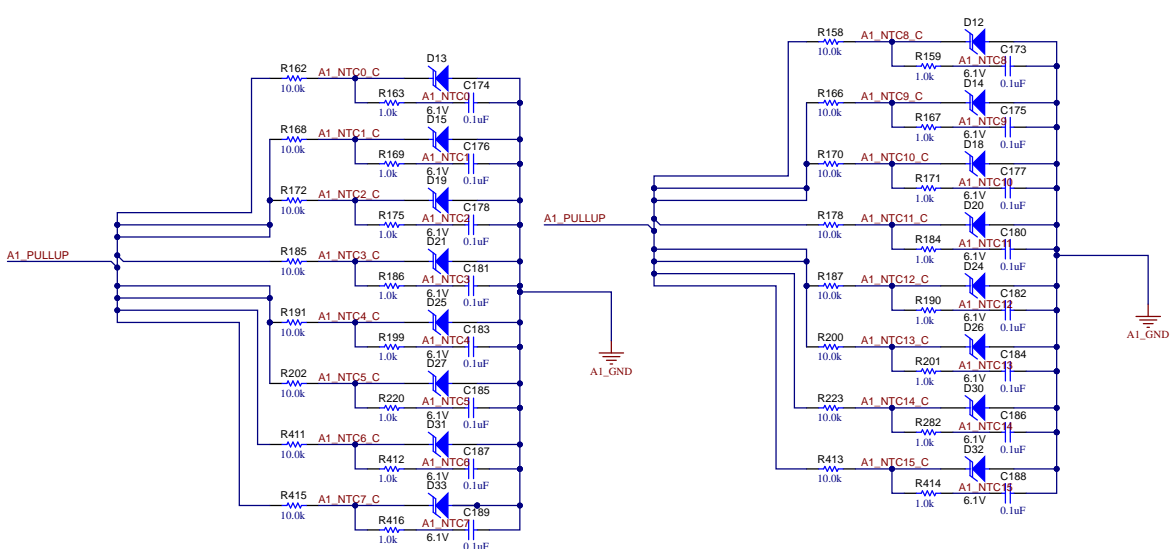
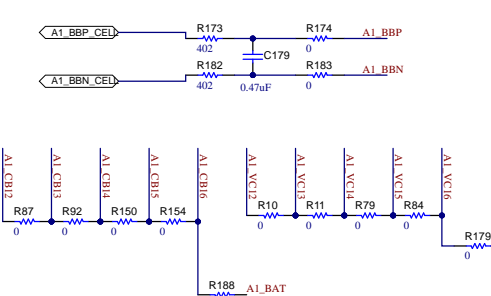
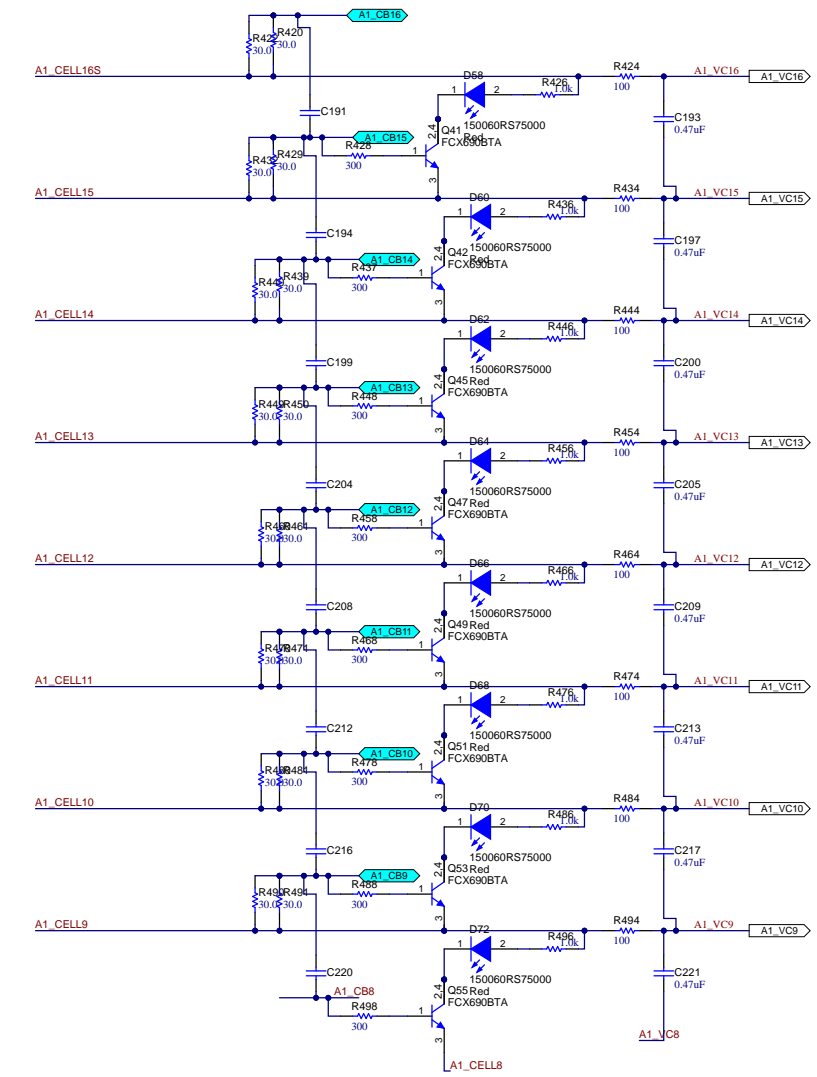
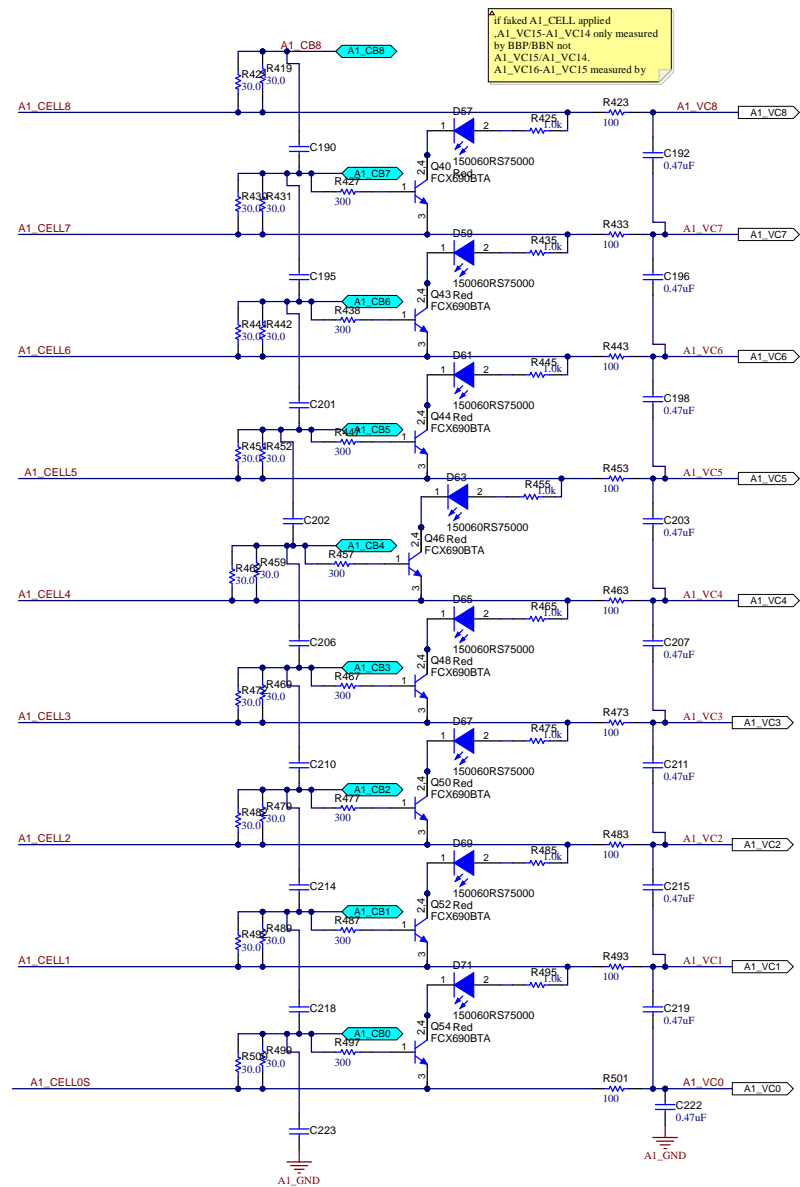
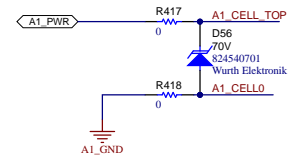
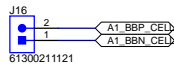
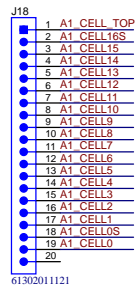
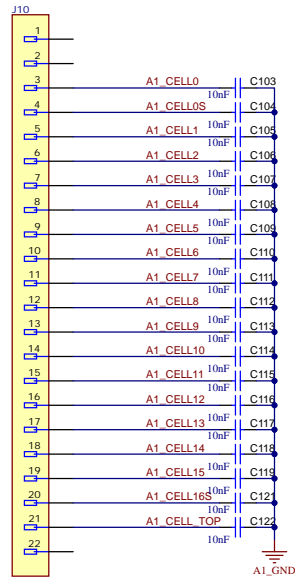
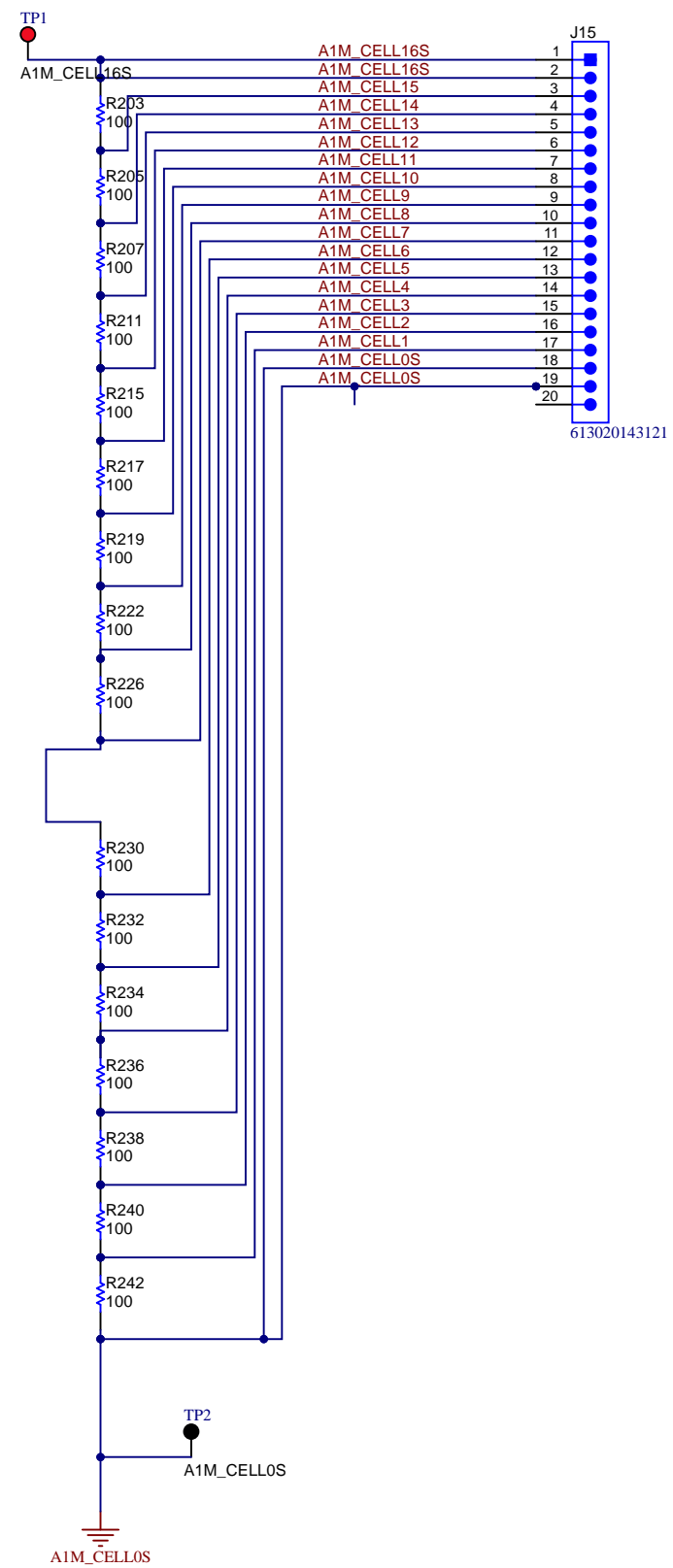
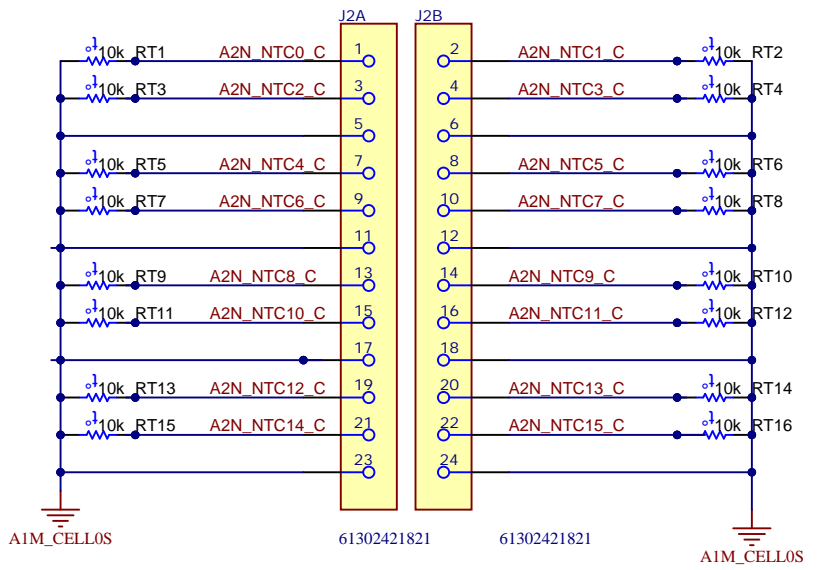
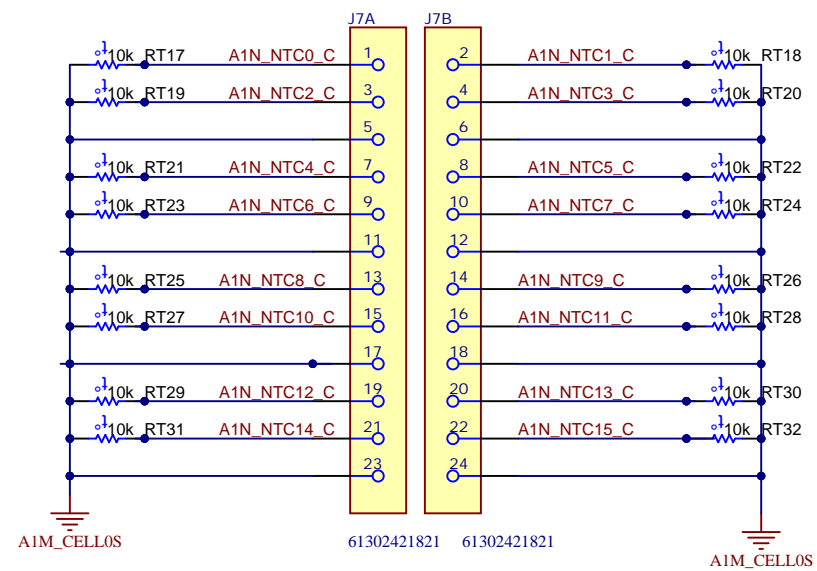


Table 4-1. TMUX1308 Truth Table

EN	SEL	Selected Source Pins Connected To Drain Pins (Ds)
0	0	S1A connected to D1 S2A connected to D2 S3A connected to D3 S4A connected to D4
0	1	S1B connected to D1 S2B connected to D2 S3B connected to D3 S4B connected to D4
1	X(0)	H-Z (OFF)







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Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 2023/8/1	 http://www.ti.com
TID #: TIDA-010271	Project Title: Stackable battery management unit reference design		
Number: TIDA-010271 Rev: E1	Sheet Title:		
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 9 of 9	
Drawn By:	File: Cell_Simulator.SchDoc	Size: A3	
Engineer: Enter name of project lead	Contact: http://www.ti.com/support		© Texas Instruments 2018

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