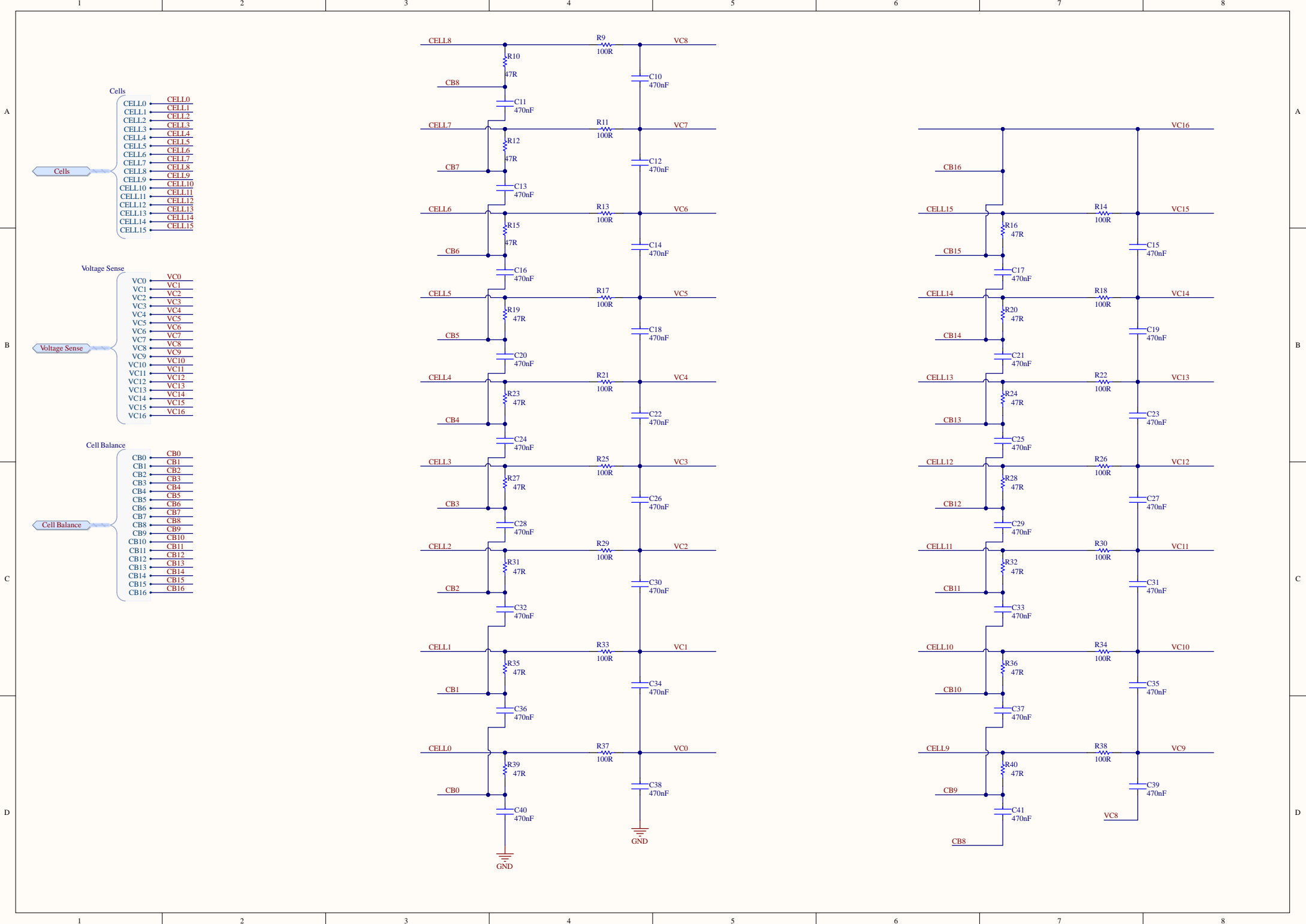


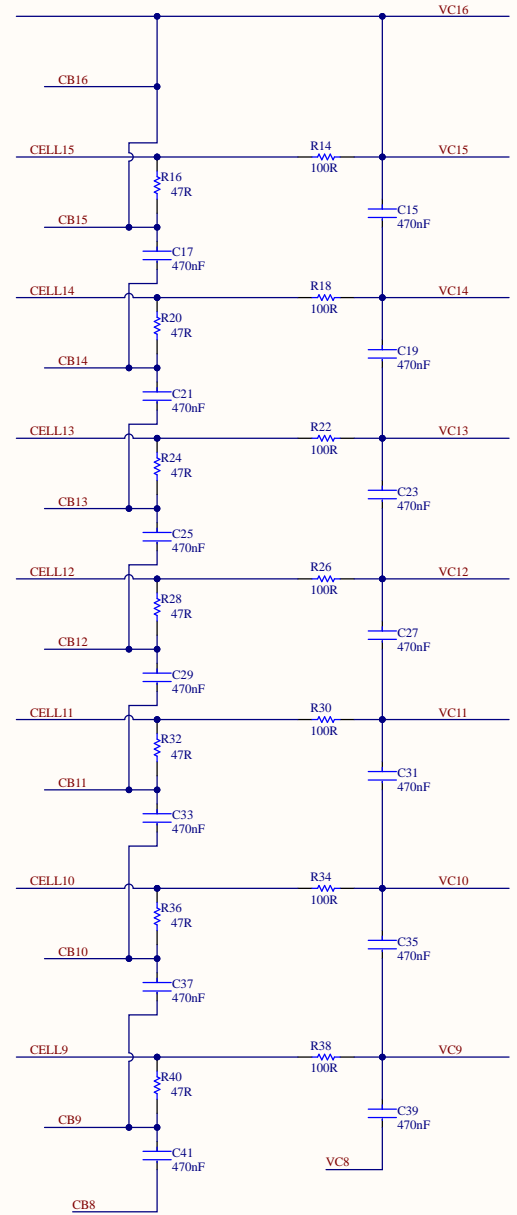
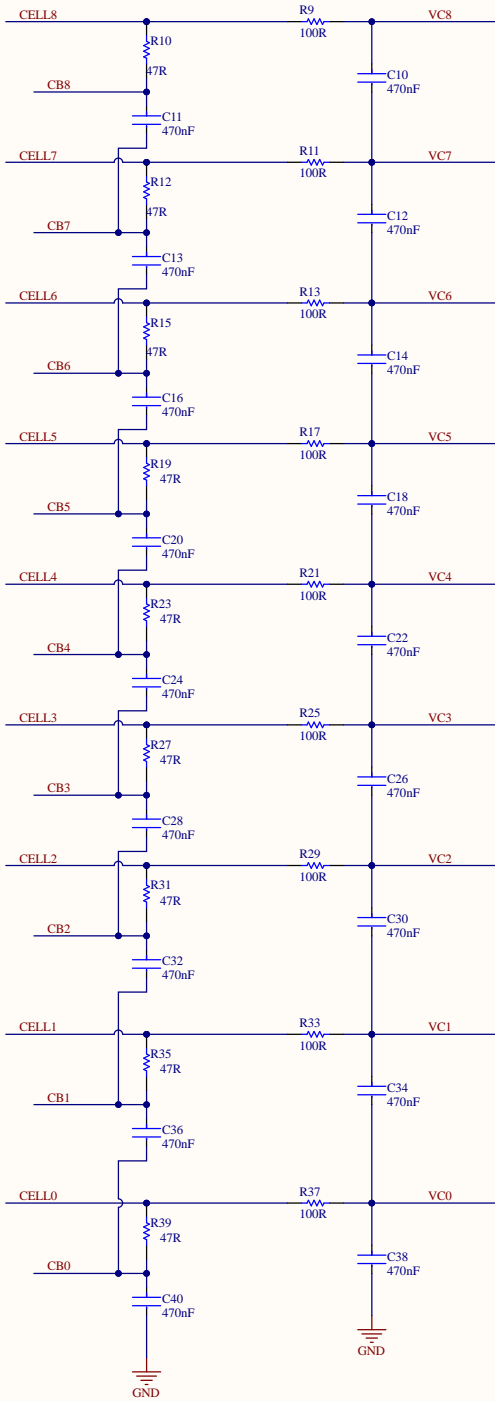
Related Pins	Components	Value	Description
BAT	Filter resistor	30 Ω	Single-ended RC filter, recommended values must be used for hot-plug performance.
	Filter capacitor	10 nF/100 V Can use lower voltage rating based on module size	
NPNB	NPN (Q1)	Collector-emitter breakdown voltage 80 V to 100 V, but can use lower rating based on module size Power rating ≥ 1 W Gain = 50 at the expected load current Current handling >100 mA	The external NPN is used to form a pre-regulation circuit to provide a 6-V (typical) input to the LDOIN pin. The voltage rating of the NPN can be optimized by the following equation: $NPN\ voltage\ rating = Max\ V_{Module} - Min\ V_{LDOIN} + Margin$ Where: Max V _{Module} = maximum module voltage with fully charged cells. Min V _{LDOIN} = the minimum spec of the V _{LDOIN} parameter Margin = system transient voltage + design margin per application requirement
	Resistor on external NPN collector (R _{ext})	Various based on module voltage	The resistor has a couple purposes: (a) For an RC filter for the NPN pre-regulation circuit (b) Share the thermal dissipation with the NPN
	Capacitor on external NPN collector	0.22 μF/100 V Can use lower voltage rating based on module size	The capacitor forms the RC filter for the NPN pre-regulation circuit. The capacitor rating is based on peak voltage spike seen on the module. For smaller module size, <100-V rated capacitor can be used. System designer selects the optimized voltage-rated capacitor per their system tolerance and requirements.



- Cells**
- CELL0
 - CELL1
 - CELL2
 - CELL3
 - CELL4
 - CELL5
 - CELL6
 - CELL7
 - CELL8
 - CELL9
 - CELL10
 - CELL11
 - CELL12
 - CELL13
 - CELL14
 - CELL15

- Voltage Sense**
- VC0
 - VC1
 - VC2
 - VC3
 - VC4
 - VC5
 - VC6
 - VC7
 - VC8
 - VC9
 - VC10
 - VC11
 - VC12
 - VC13
 - VC14
 - VC15
 - VC16

- Cell Balance**
- CB0
 - CB1
 - CB2
 - CB3
 - CB4
 - CB5
 - CB6
 - CB7
 - CB8
 - CB9
 - CB10
 - CB11
 - CB12
 - CB13
 - CB14
 - CB15
 - CB16



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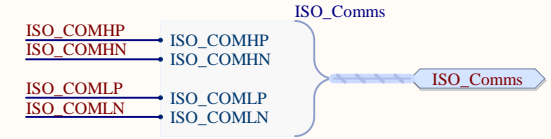
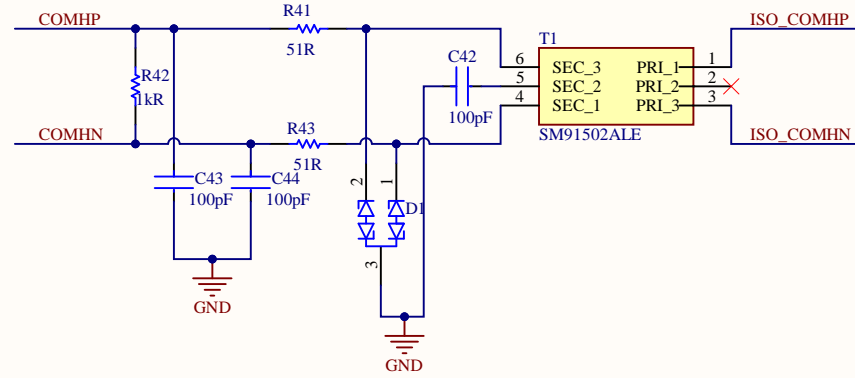
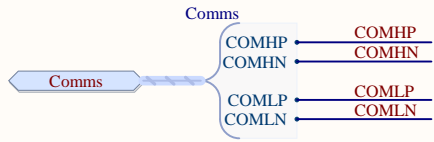
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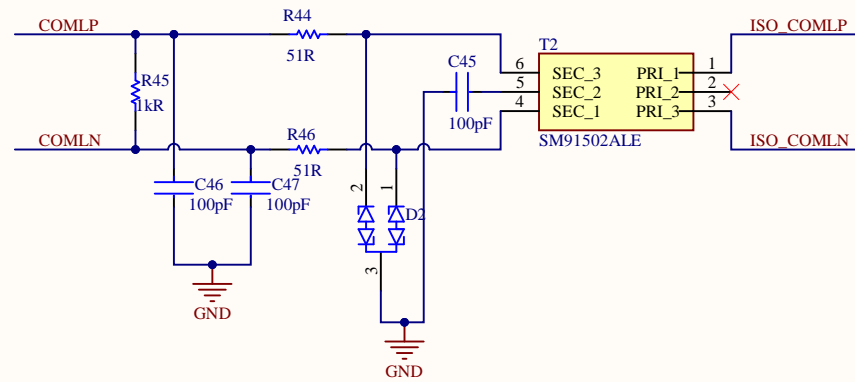
B

B



C

C



D

D

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2

3

4