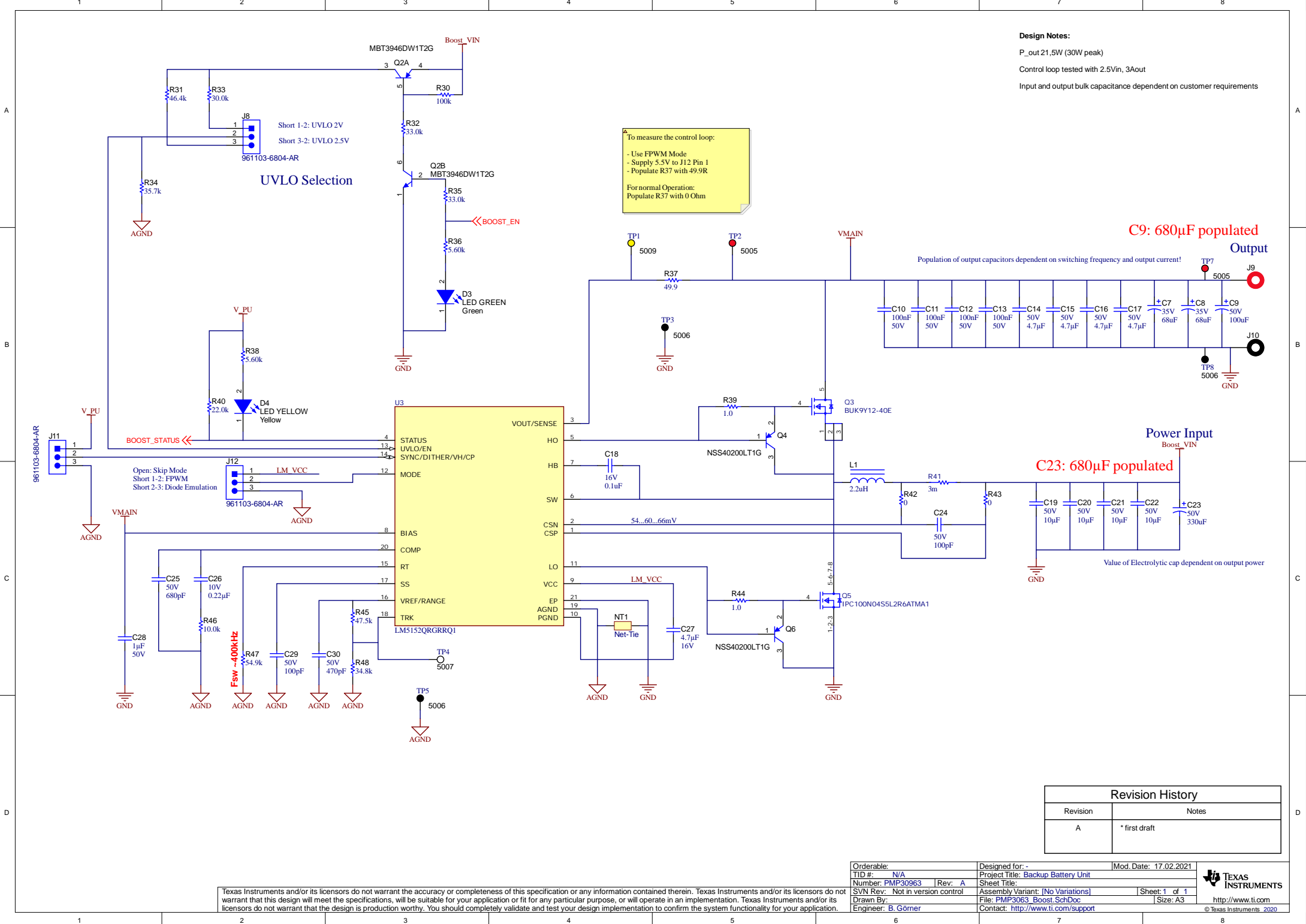


Modifications added on board:  
 15nF from U4 Pin 5 to GND  
 100k from U4 Pin 5 to rest of circuit  
 Schottky diode parallel to 100k resistor, Cathode to U4

330k from Q10 pin 3 to U6 Pin3/4 assembled on board

**Design Notes:**  
 Use automated switchover OR  
 Monitor Boost\_VIN to enable VBAT  
 not before Boost\_IN <=5V

Optional automated switchover



**Design Notes:**  
 P\_out 21,5W (30W peak)  
 Control loop tested with 2.5Vin, 3Aout  
 Input and output bulk capacitance dependent on customer requirements

To measure the control loop:  
 - Use FPWM Mode  
 - Supply 5.5V to J12 Pin 1  
 - Populate R37 with 49.9R  
 For normal Operation:  
 Populate R37 with 0 Ohm

C9: 680µF populated  
 Output

Population of output capacitors dependent on switching frequency and output current!

C23: 680µF populated  
 Power Input

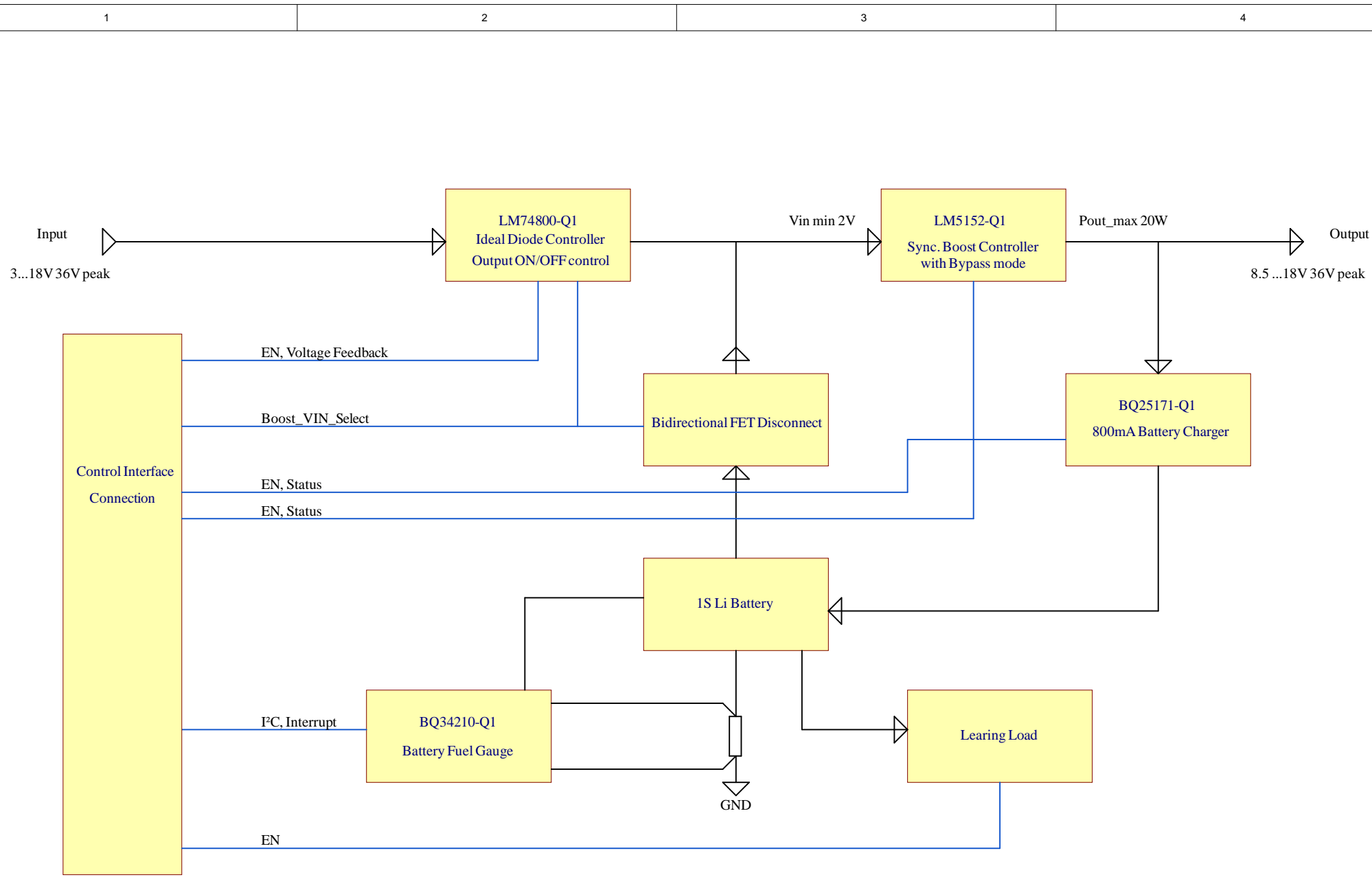
Value of Electrolytic cap dependent on output power

Revision History	
Revision	Notes
A	* first draft

Orderable:	Designed for: -	Mod. Date: 17.02.2021
TID #: N/A	Project Title: Backup Battery Unit	
Number: PMP30963	Rev: A	Sheet Title:
SVN Rev: Not in version control	File: PMP3063 Boost_SchDoc	Assembly Variant: [No Variations]
Drawn By:	Engineer: B. Görner	Sheet: 1 of 1
		Size: A3
	Contact: http://www.ti.com/support	

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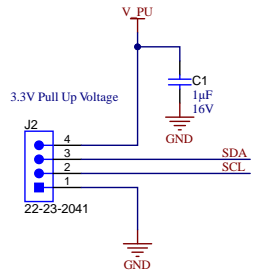




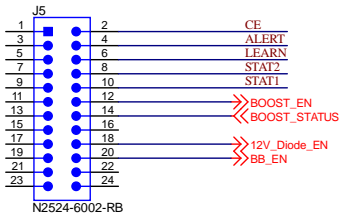
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Orderable:	Designed for: -	Mod. Date: 18.02.2021
TID #: N/A	Project Title: Backup Battery Unit	
Number: PMP30963	Rev: A	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: [No Variations]	Sheet: 1 of 1
Drawn By:	File: PMP3063_BlockDiagram.SchDoc	Size: A4
Engineer: B. Görner	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	

# Battery Fuel Gauge

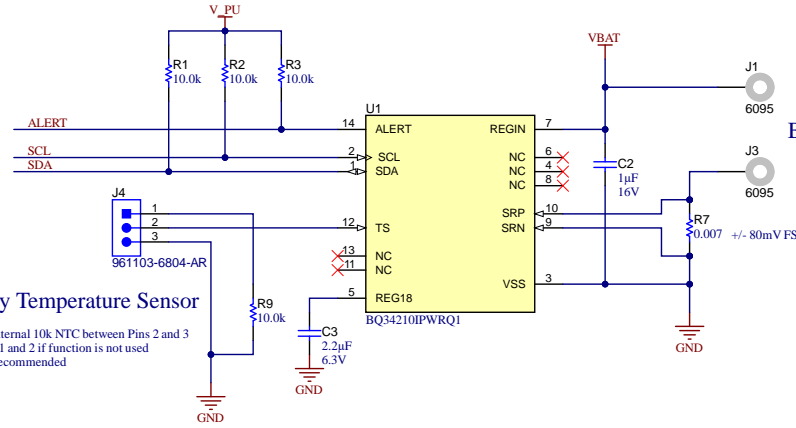


## EV2400 Connections

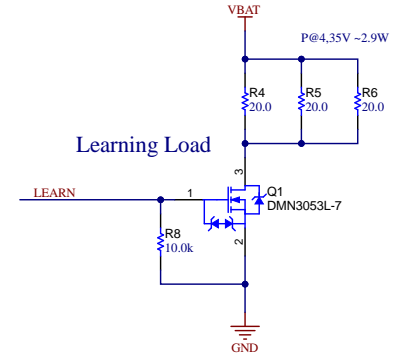


## Battery Temperature Sensor

Connect external 10k NTC between Pins 2 and 3  
Short Pins 1 and 2 if function is not used  
103AT-2 Recommended

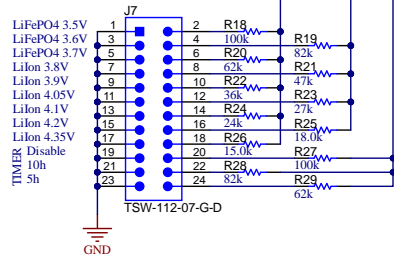
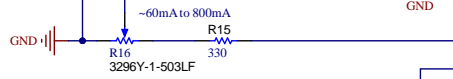


## Battery Connection

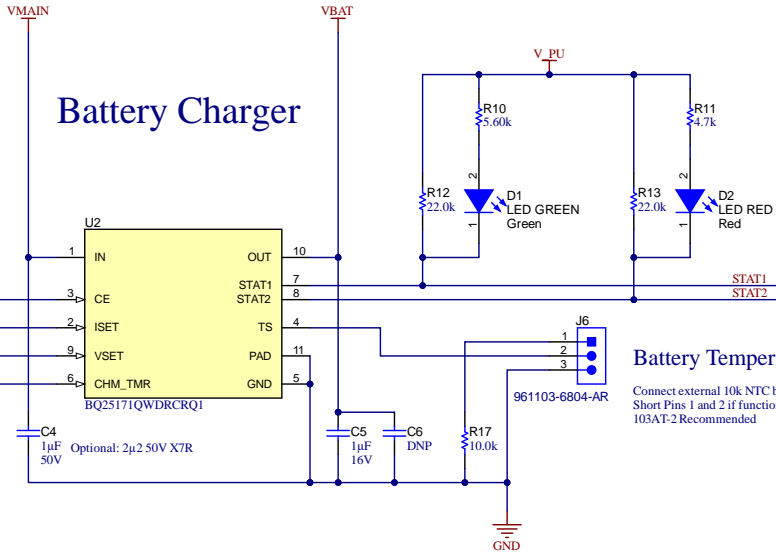


## Battery Voltage Selection

## I\_Charge Adjust



# Battery Charger



## Battery Temperature Sensor

Connect external 10k NTC between Pins 2 and 3  
Short Pins 1 and 2 if function is not used  
103AT-2 Recommended

## Safety Timer Configuration

Timer Configuration Jumpers. No Jumper = No Charge

## Design Notes:

PRELIMINARY SCHEMATIC!

## Revision History

Revision	Notes
A	* first draft

Orderable:	Designed for: -	Mod. Date: 11.02.2021
TID #: N/A	Project Title: Backup Battery Unit	
Number: PMP30963	Rev: A	Sheet Title:
SVN Rev: Not in version control	Assembly Variant: [No Variations]	Sheet 1 of 1
Drawn By:	File: PMP3063_Battery_SchDoc	Size: A3
Engineer: B. Görner	Contact: http://www.ti.com/support	

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