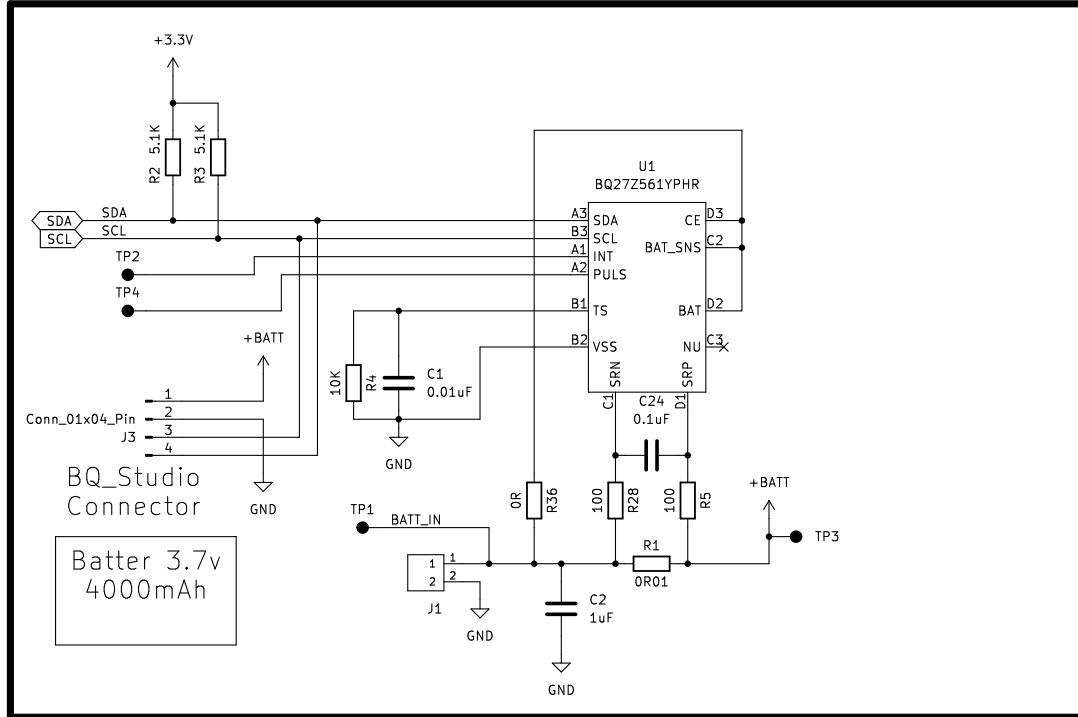
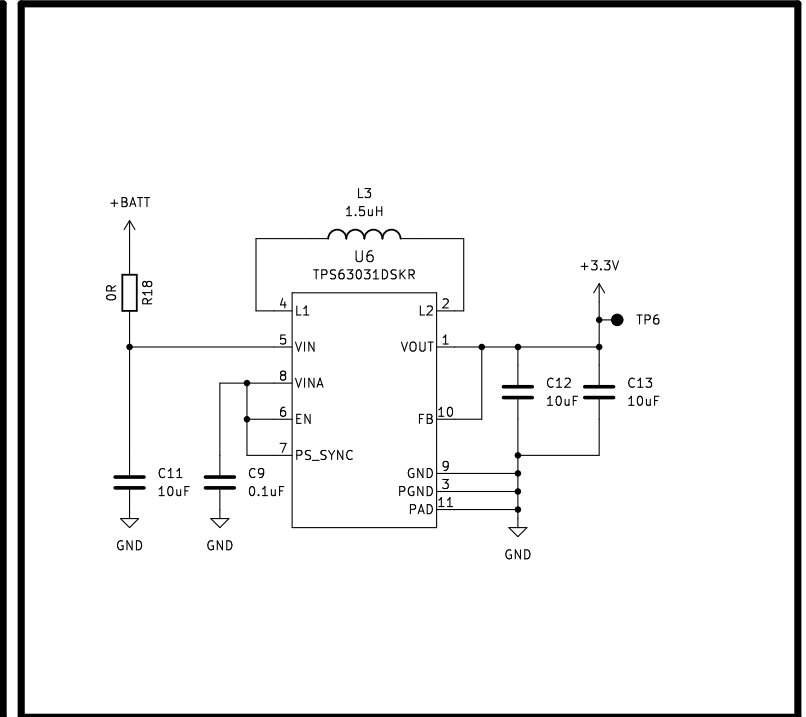


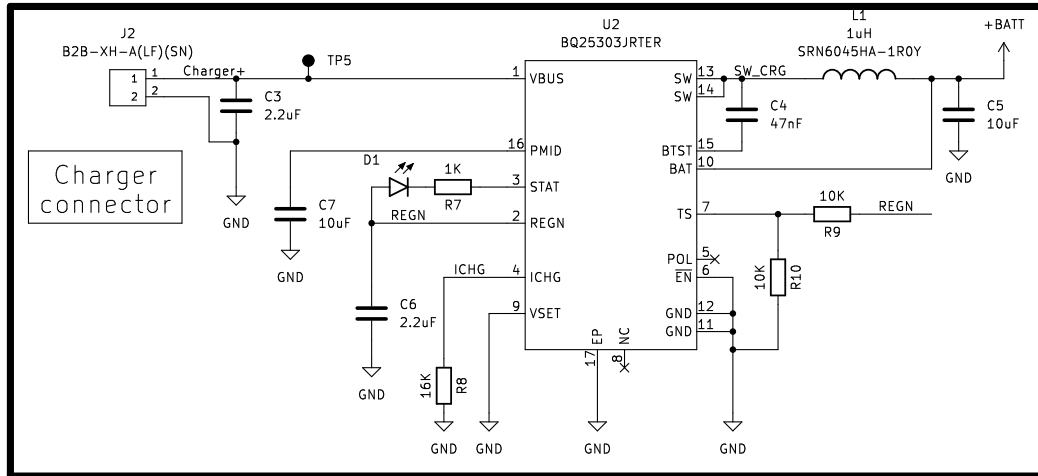
Battery fuel gauge



3V3 Buck/Boost



Battery Charger



Admetec

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Title: OrchidNG Test Board

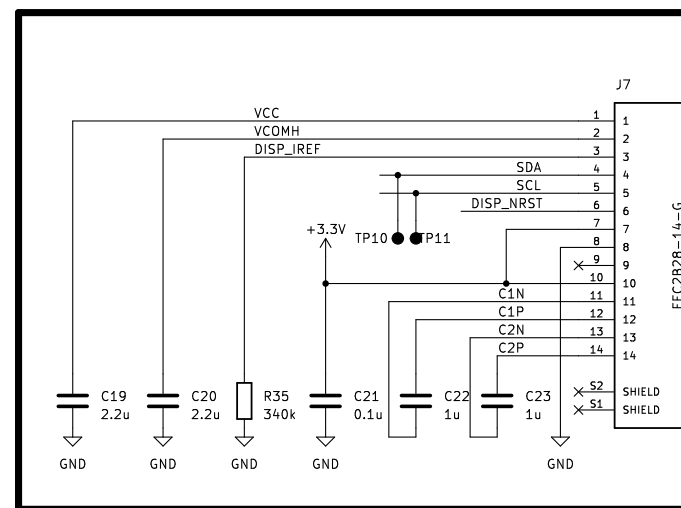
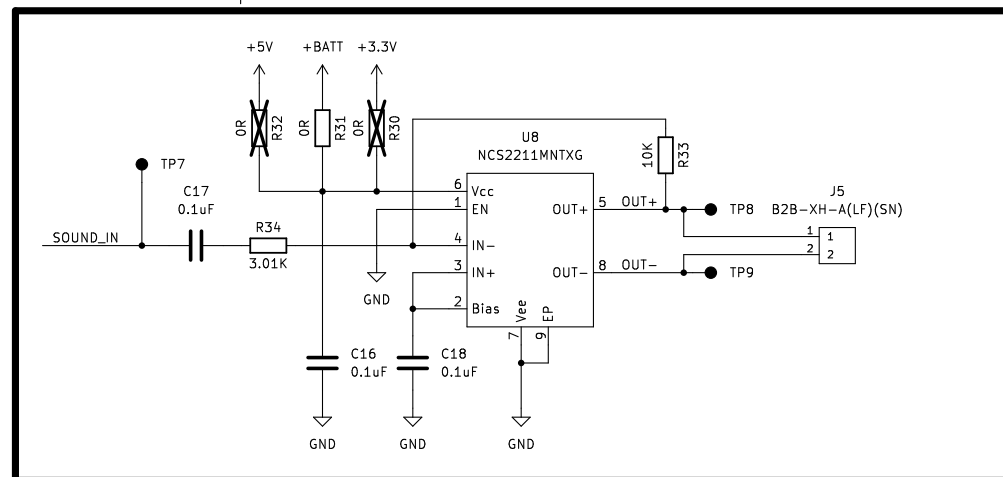
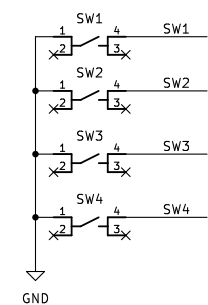
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The schematic diagram illustrates a DC-DC buck converter circuit for an LED. The main components and their connections are as follows:

- IC:** U3 TPS63802DLAR, a 2.5V, 100mA, 1.5MHz buck converter.
- Inputs:**
 - LED_V_SAMPLE:** Connected to the VIN pin (10) via a 100K resistor (R14) and a 100K resistor (R29).
 - LED_PWM:** Connected to the EN pin (1) via a 10K resistor (R17).
- Power and Grounding:**
 - +BATT:** Connected to the VIN pin (10) via a 10K resistor (R20).
 - LED_EN:** Connected to the EN pin (1) via a 10K resistor (R20).
 - LED_VIN:** Connected to the VIN pin (10).
 - LED_EN:** Connected to the EN pin (1).
 - LED_OUT:** Connected to the VOUT pin (6) via a 10K resistor (R11).
 - LED_RET:** Connected to the VOUT pin (6) via a 10K resistor (R13).
- Output Stage:**
 - LED:** L2, 470nH, connected to the VOUT pin (6) via a 10K resistor (R11).
 - LED Disconnect protection:** A diode (D2) connected to the VOUT pin (6) via a 10K resistor (R11).
 - LED_VIN:** Connected to the VIN pin (10) via a 10K resistor (R20).
 - LED_EN:** Connected to the EN pin (1) via a 10K resistor (R20).
 - LED_OUT:** Connected to the VOUT pin (6) via a 10K resistor (R11).
 - LED_RET:** Connected to the VOUT pin (6) via a 10K resistor (R13).
- Other Components:**
 - C8:** 10uF, connected to the VIN pin (10) via a 10K resistor (R20).
 - C10:** 10uF, connected to the VOUT pin (6) via a 10K resistor (R11).
 - R12:** 10K, connected to the VOUT pin (6) via a 10K resistor (R11).
 - R13:** 10K, connected to the VOUT pin (6) via a 10K resistor (R11).
 - R14:** 100K, connected to the VIN pin (10) via a 10K resistor (R20).
 - R15:** 470R, connected to the VOUT pin (6) via a 10K resistor (R11).
 - R17:** 10K, connected to the EN pin (1) via a 10K resistor (R20).
 - R20:** 10K, connected to the VIN pin (10) via a 10K resistor (R20).
 - R29:** 100K, connected to the VIN pin (10) via a 10K resistor (R20).

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