

# Portable Charger

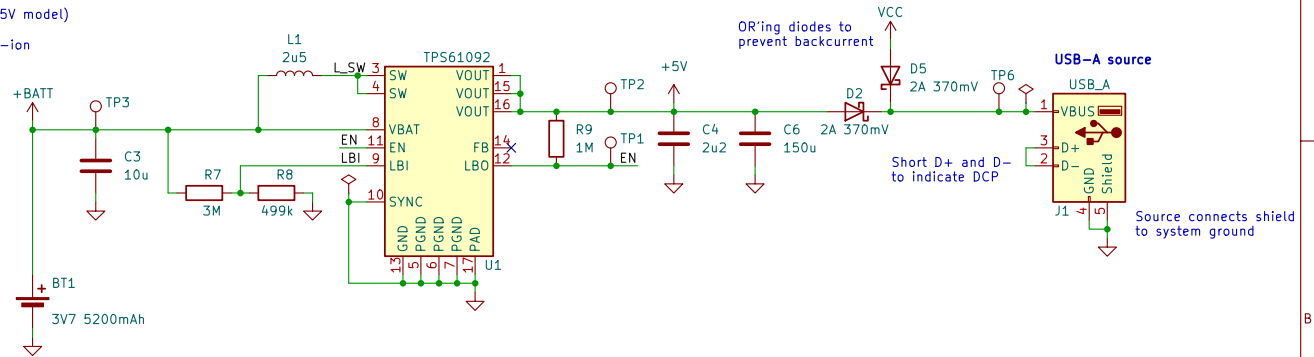
## Boost Converter w/ Undervoltage Protection (5V 2A Output)

FB sets output voltage, not needed with the 61092 (fixed 5V model)

LBI voltage divider sets 3V5 undervoltage protection for Li-ion  
LBO goes to enable pin

X7R, X5R ceramic IO capacitors

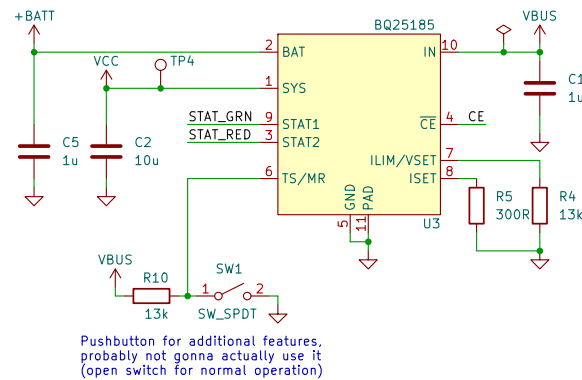
Low ESR tantalum bulk capacitor



## Li-Ion Battery Charger

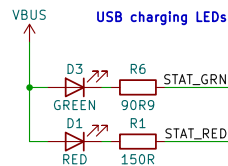
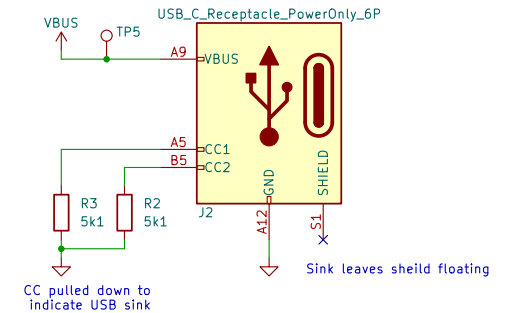
X7R decoupling capacitors  
(rated for 25V, values after degradation)

300R ISET => 1A Output  
13k ILIM/VSET => 1.1A Input (4.2V cells)



## USB-C sink

PD is too complicated, boost converter  
used to step up battery voltage later



## Mounting Holes

- H1 MountingHole
- H2 MountingHole
- H3 MountingHole
- H4 MountingHole

Battery Charger Calculations: <https://www.desmos.com/calculator/wqzt55q65s>  
Boost Converter Calculations: <https://www.desmos.com/calculator/rgpbvnxheu>

Isaac Longo

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