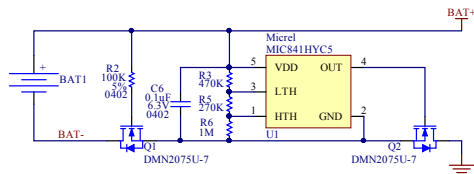


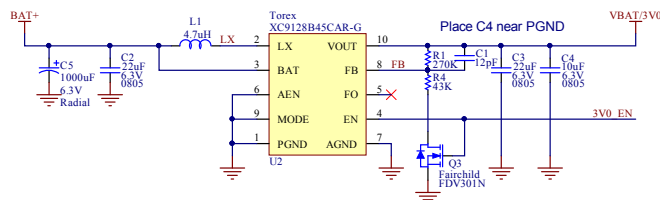
## Reverse Voltage Protection and Under Voltage Lockout

Q10 provides efficient protection in case of battery reversal. Make sure to use a NFET with a low VGS\_TH. U10 and Q11 provide an undervoltage lockout for graceful shutdown when the batteries can no longer supply enough power to the Imp. Based on experiments we have set the lock out at 1.7V and re-enable at 2.15V.

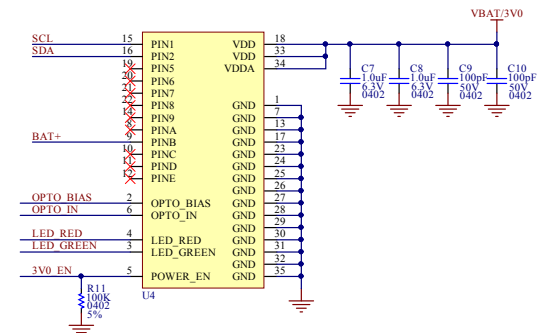


## Power Supply

We chose the XC9128 because it is low cost, efficient, has a low Iq and has passthru when it is disabled. To save power when it is disabled we also turn of the leakage path through the FB network. Alkaline batteries can have a very high output impedance so we recommend at least 220uF on the battery input to support high current peaks.

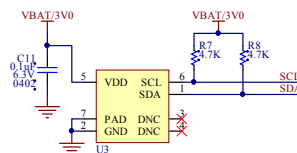


## IMP Module

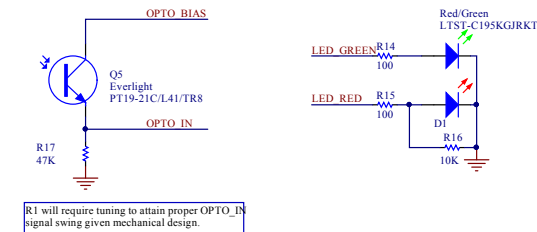


## Temp/Humidity Sensor

7-bit base slave address is 0x40



## BlinkUp Components



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