

ESP32 Radiosonde

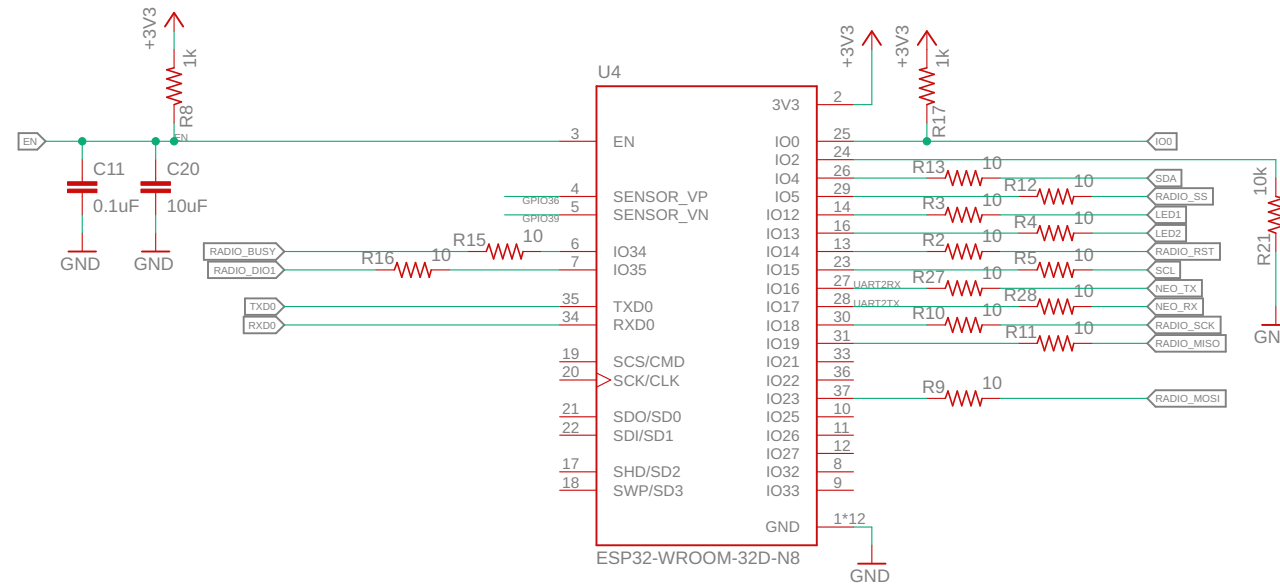
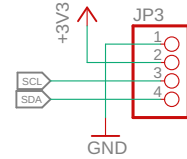
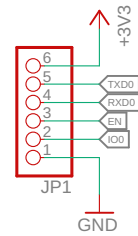
Programming Header

I2C Header

ESP32WROOM

Caps

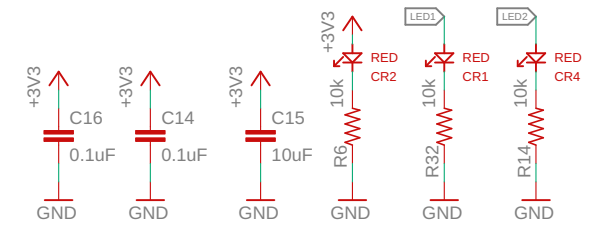
LEDs



Must be low to enter flashing mode
Must be low or floating at boot

Outputs PWM at boot
Boot fails if pulled high

Outputs PWM at boot



Ordering Notes:
Trace impedance assumes GCWG 7.5m gap on 0.8mm substrate per JLC calculator for 50 Ohm trace.
Use economic order and omit ESP32
Change LoRa radio PN to VGdd79S915N0S1 for 915 MHz
Change GPS to ATGM332D-5N31 for Chinese knockoff.
Change USB to C404968
Move USB, IC1
Change orientation of U1, U3, U6, U7

Parts to buy on Digikey:
ESP32
LoRa Antenna
GPS Antenna
Battery holder
Battery

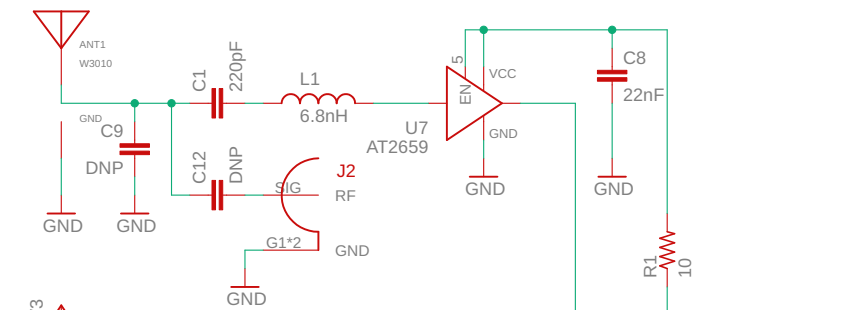
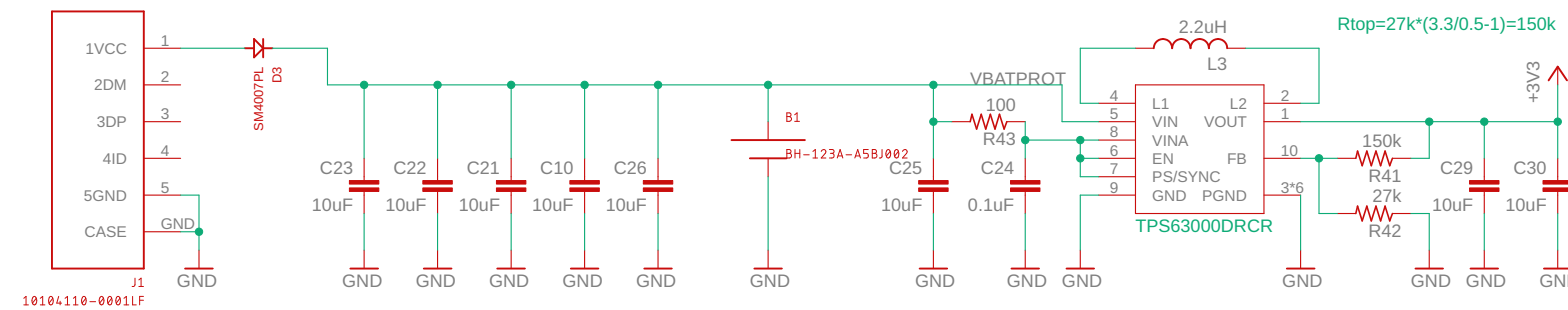
Micro USB Test Power Input

CR123A Battery Holder

Buck / Boost Converter

NEO-M6 GPS

Do not plug both the battery and USB in at the same time or there will be a fire.



SHT40 Humidity Sensor

BMP280 Pressure Sensor

433MHz LoRa Transmitter

