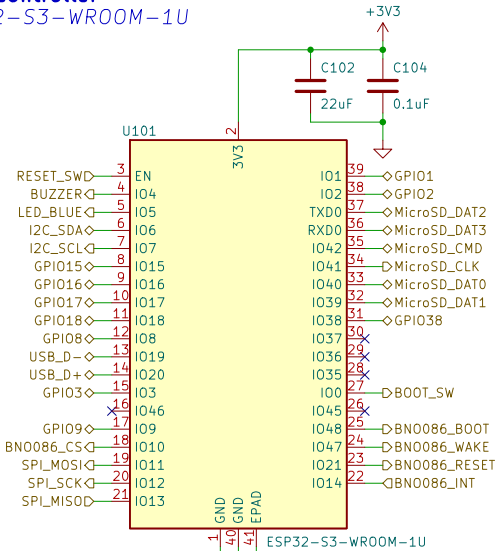
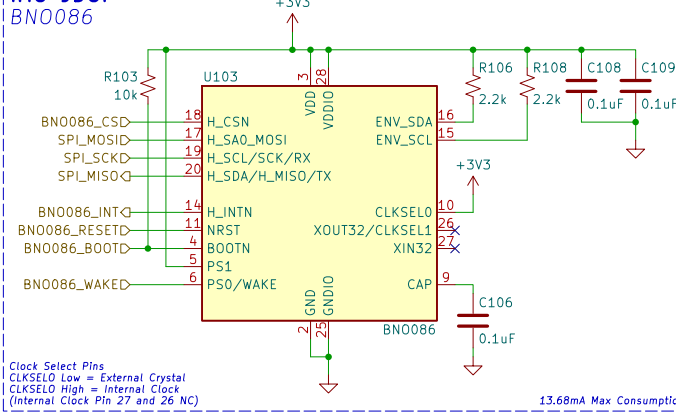


**Microcontroller**  
ESP32-S3-WROOM-1U



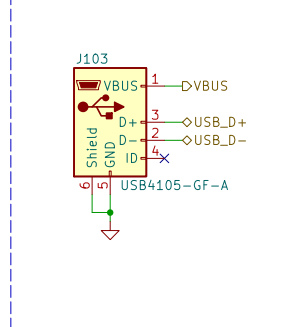
**IMU 9DOF**  
BNO086



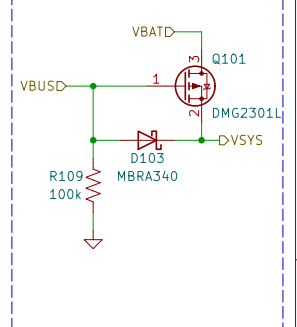
Clock Select Pins  
CLKSELO Low = External Crystal  
CLKSELO High = Internal Clock  
(Internal Clock Pin 27 and 26 NC)

13.68mA Max Consumption

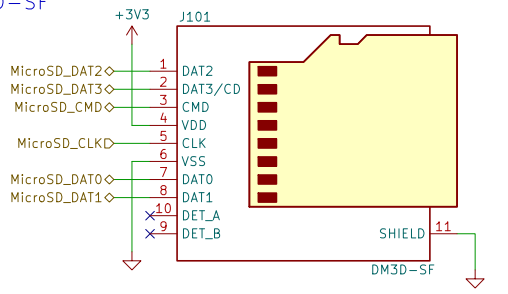
**ESP32 USB Micro-B Port**  
Power/Data



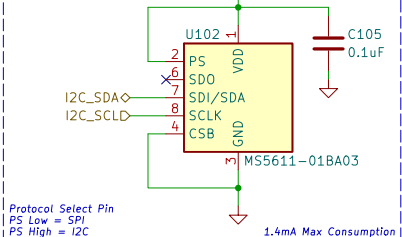
**Power**



**MicroSD Card Connector**  
DM3D-SF



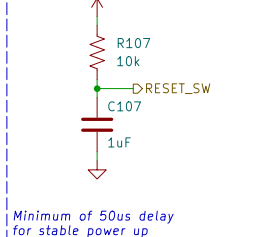
**Barometer**  
MS5611-01BA



Protocol Select Pin  
PS Low = SPI  
PS High = I2C

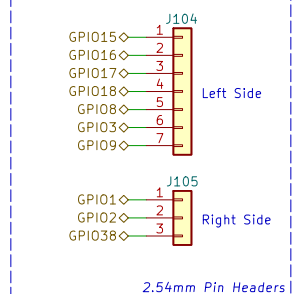
1.4mA Max Consumption

**MCU Boot Delay**

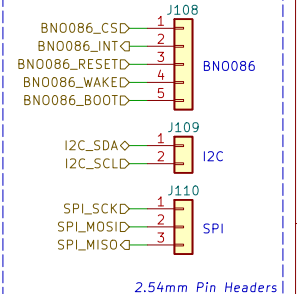


Minimum of 50us delay for stable power up

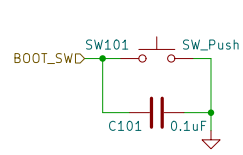
**Extra Pins**



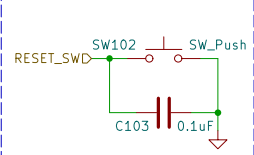
**Debug Pins**



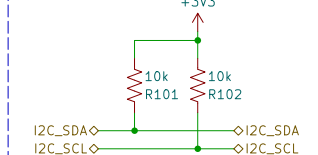
**ESP32 Boot Button**



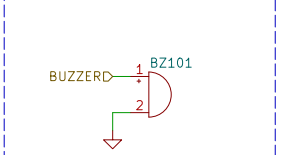
**ESP32 Reset Button**



**Pull-Up Resistors**

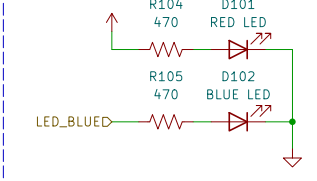


**Piezo Buzzer**  
AT-0927-TT-6-R

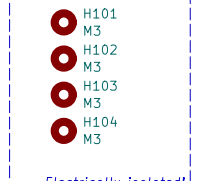


80mA Max  
85dB @ 3V  
2,730 ± 500 Hz

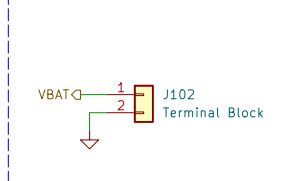
**LEDs**



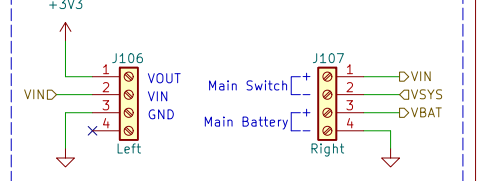
**Mounting Holes**



**Battery Connector**



**Screw Terminals**



Contributors: Thomas McManamen

**Illinois Space Society**

Sheet: /  
File: L1-Altimeter.kicad\_sch

**Title: L1 Altimeter**

Size: A4 Date: 2023-12-29  
KiCad E.D.A. kicad 7.0.7

Rev: A  
Id: 1/1