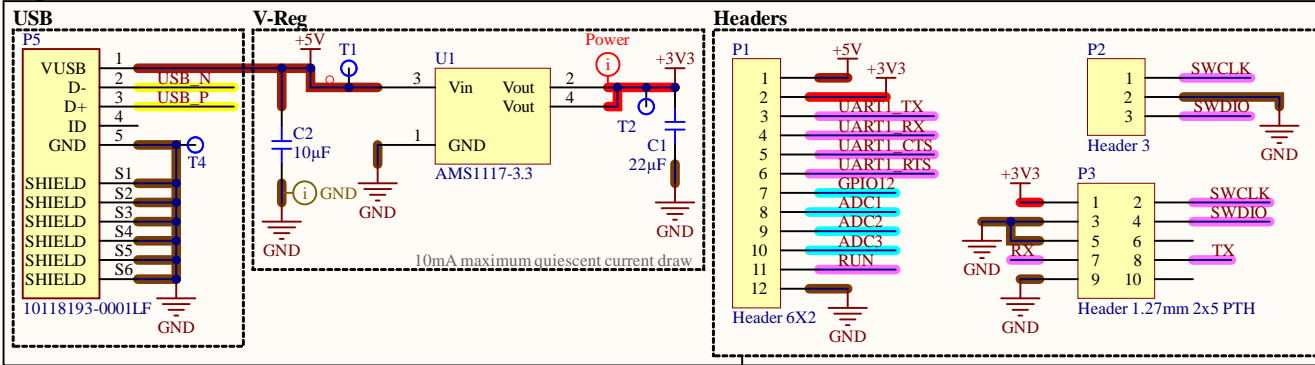
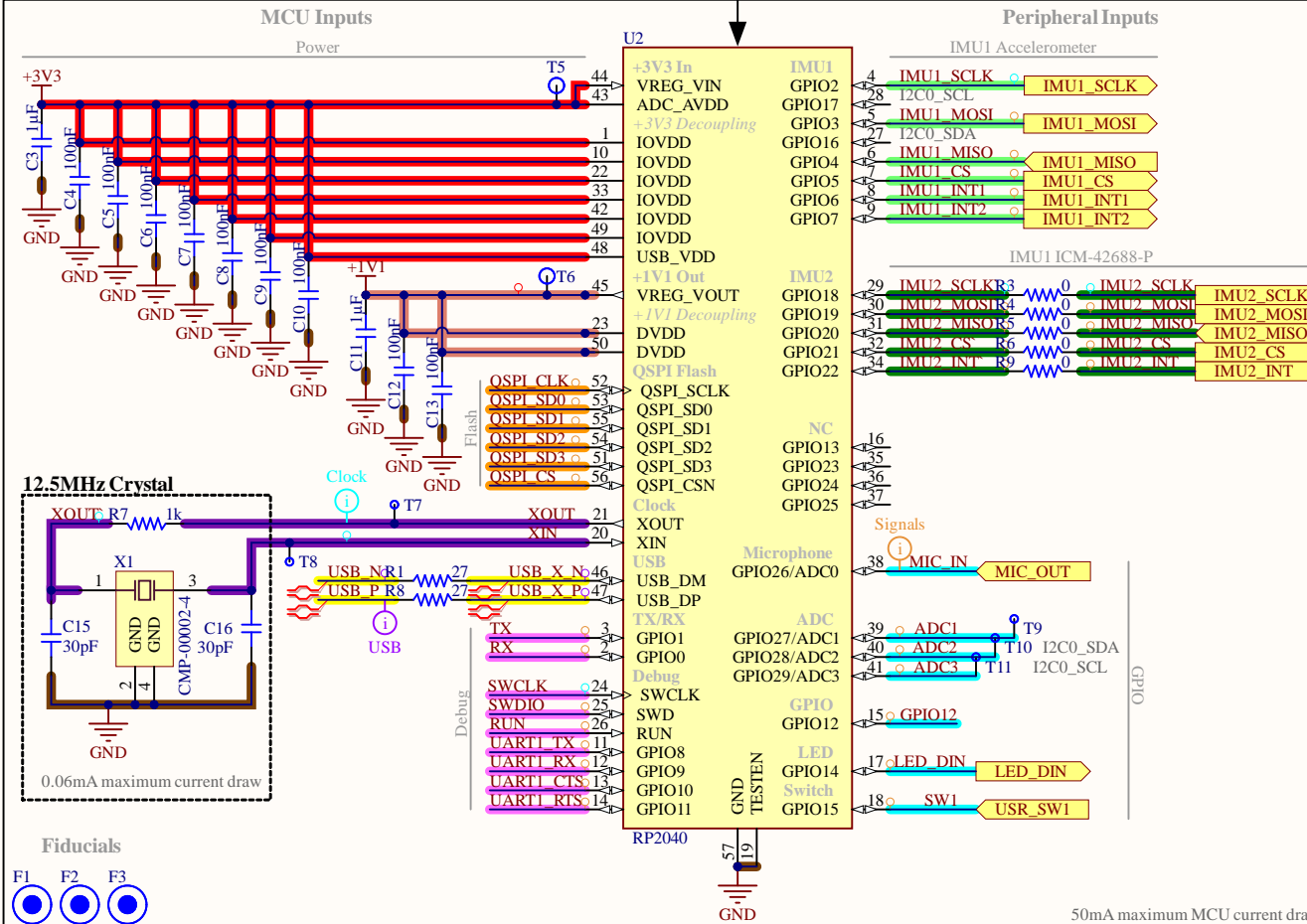


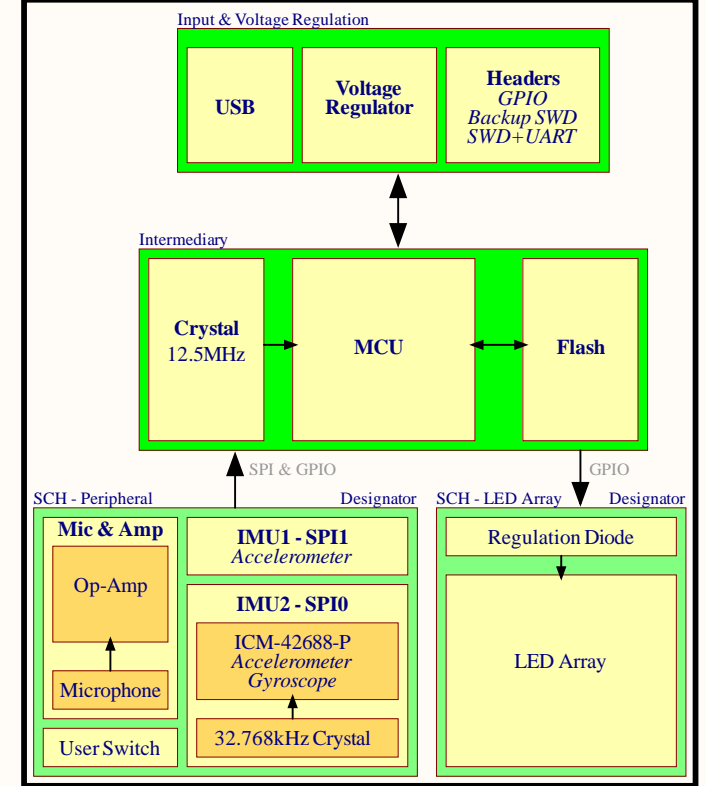
Input



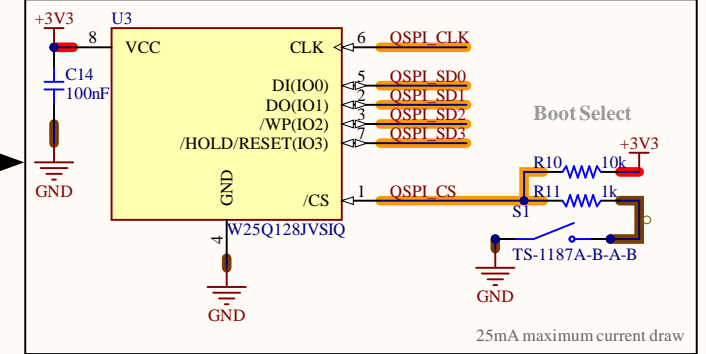
MCU & Crystal - Intermediary



Block Diagram



Flash - Intermediary



AS1 SCH - Input & Intermediaries
Conx, Headers, MCU & Flash

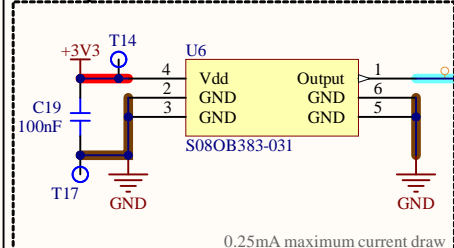
Sheet 1 of 3
Date: 12/08/2024 Time: 4:34:56 PM
File: SCH - Inputs and Intermediary.SchDoc

Drawn by:
Jacob Finger
Liam McLaren
Revision: 1.2

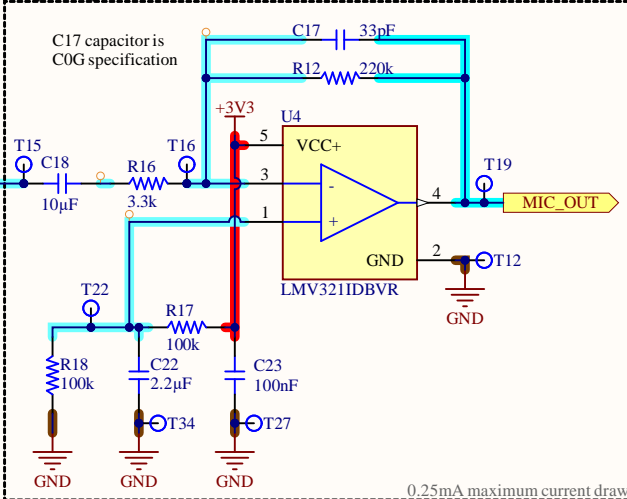


User Input

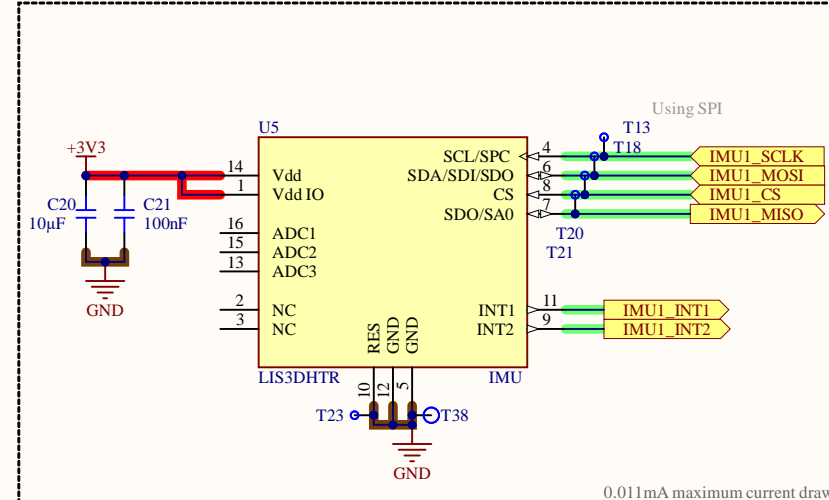
Microphone



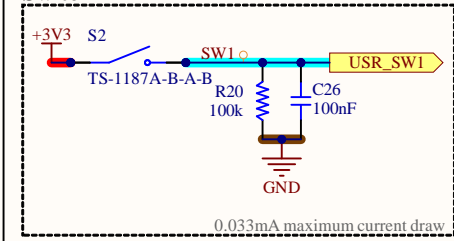
Op-Amp



IMU1 - LIS3DHTR - Accelerometer

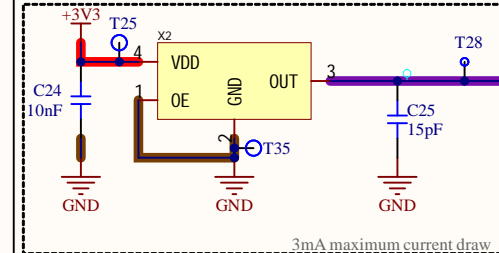


Switch



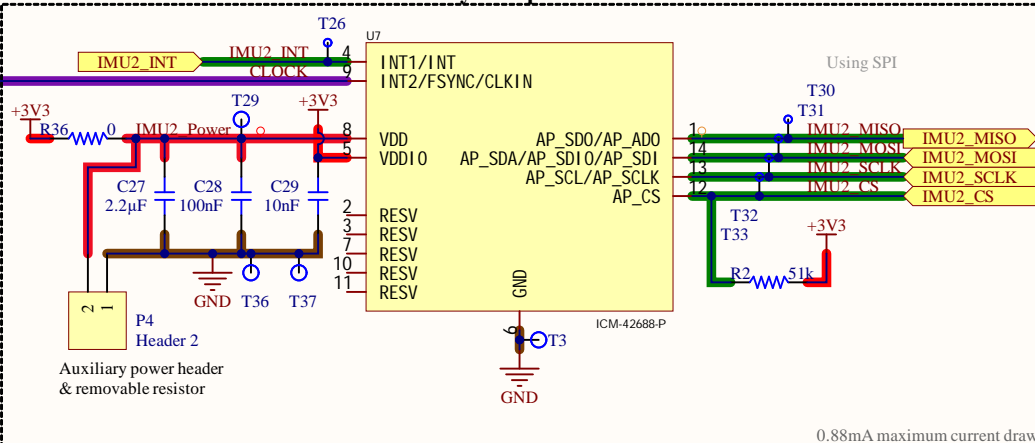
Additional IMU2

32.768KHz RTC



Line Capacitance: 82.10345pF/m * 5.942mm = 0.488pf trace
15pf total load capacitance - 0.488pf line capacitance ~ 15pf load cap

IMU2 - ICM-42688-P - Accelerometer & Gyroscope

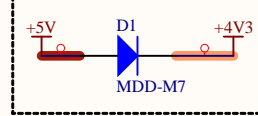


System Current Draw

IMU1 - 11uA
IMU2 - 88uA
Flash - 25mA
MCU - 50mA
32kHz Crystal - 3mA
12.5MHz Crystal - 0.06mA
Op-Amp - 250uA
Microphone - 250uA
Voltage Regulator - 10mA
LED Array - 432mA
Switch - 33uA

521.4mA maximum current draw

Regulation Diode



LED Array

