Interface

File: interface.kicad_sch

Microcontroller

File: microcontroller.kicad_sch

Power

File: power.kicad_sch

Speaker Amps

File: speaker_amp.kicad_sch

Microphone Filters and Amp

File: microphone_filter.kicad_sch

ADC

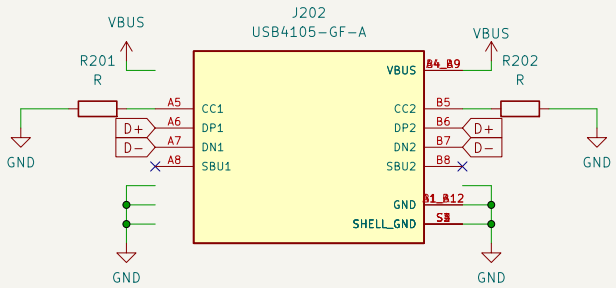
File: adc.kicad_sch

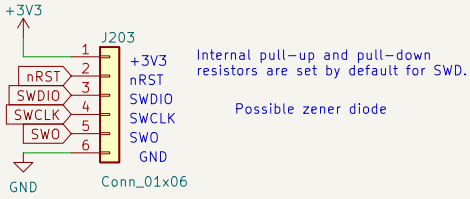
Designers: Venkadesh Eswaranandam, Kevin Lie-Atjam, Luke Nonas-Hunter,
Wesley Soo-Hoo
Global Health
Affordable Design and Entrepreneurship
Olin College of Engineering

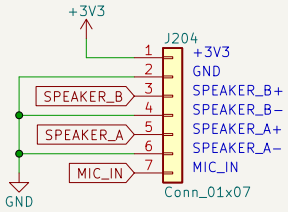
Sheet: /
File: oae.kicad_sch

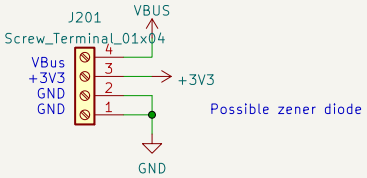
Title: OAE

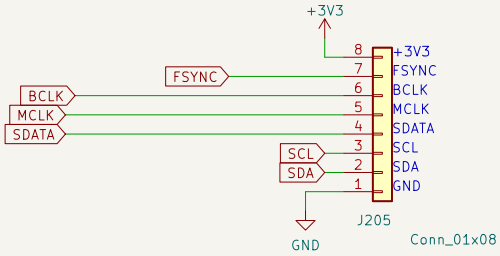
Size: A4	Date: 2022-10-19	**Rev: 0**
KiCad E.D.A. kicad 7.0.2		Id: 1/8











We are not sure about the proximity of the i2s and i2c interfaces and whether this line will function as an antenna when not connected

Sheet: /Interface/		
File: interface.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
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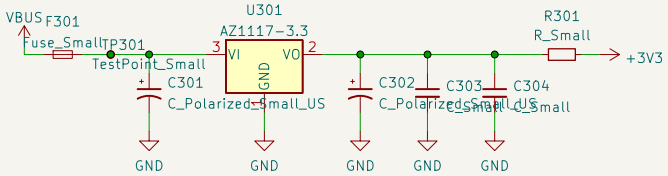
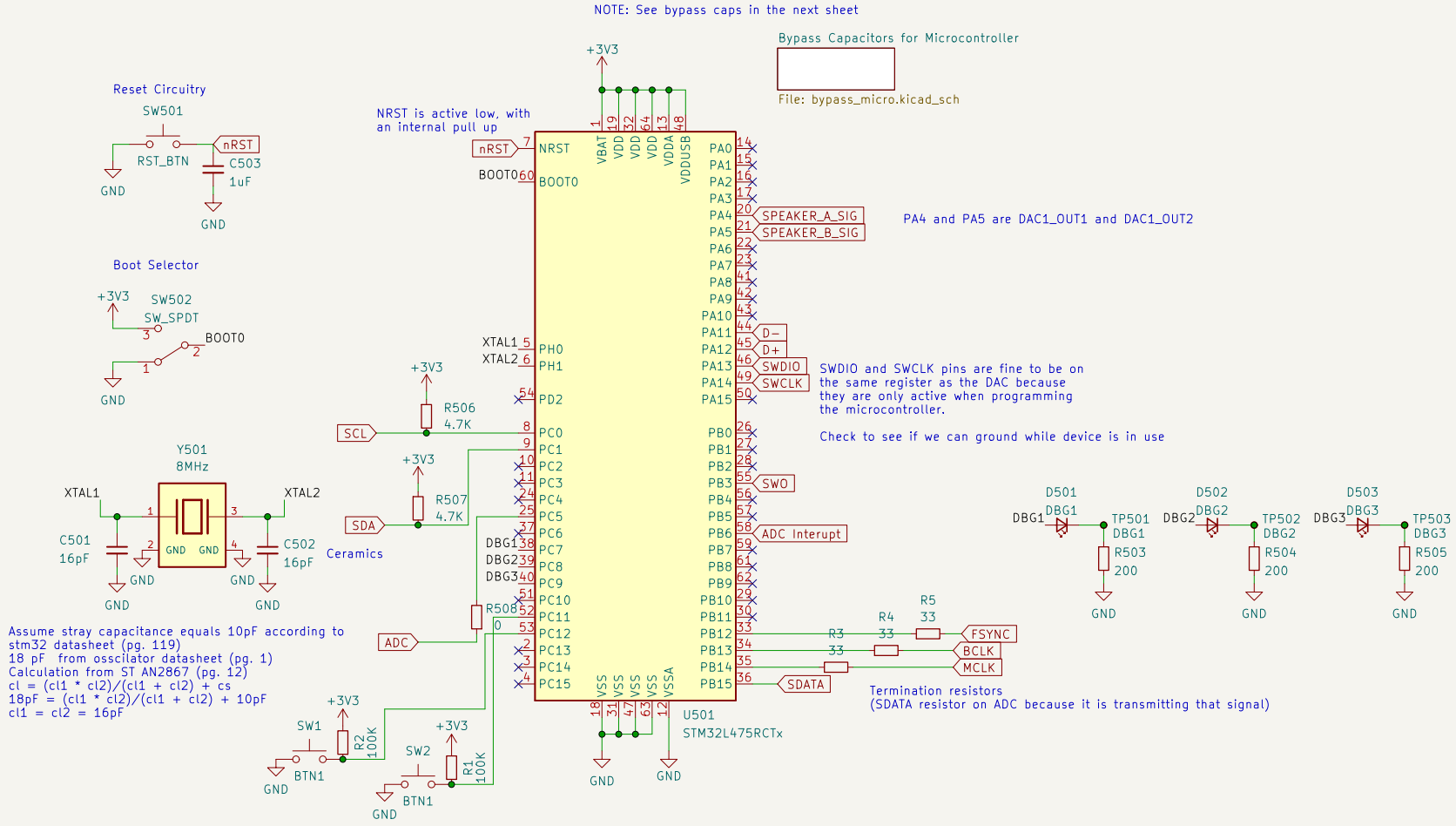


Sheet: /Power/
File: power.kicad_sch

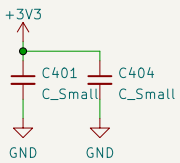
Title:

Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.2		Id: 3/8

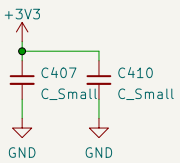


Sheet: /Microcontroller/		
File: microcontroller.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.2		Id: 4/8

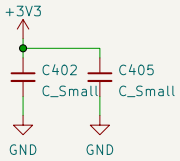
VBat (1)



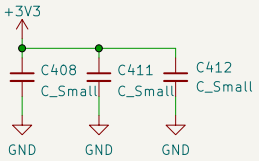
VDD (64/63)



VDD (19/18)

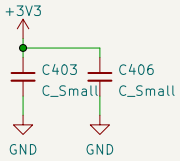


VDDA (13/12)

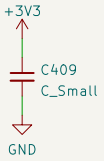


Page 86 of the data sheet states:
Each power supply pair (V DD /V SS, V DDA /VSSA etc.) must be decoupled with filtering ceramic capacitors. These capacitors must be placed as close as possible to, or below, the appropriate pins on the underside of the PCB to ensure the good functionality of the device.

VDD (32/31)



VDDUSB (48/47)



Layout note: Make sure these bypass caps are physically close to the noted pin

Sheet: /Microcontroller/Bypass Capacitors for Microcontroller/		
File: bypass_micro.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
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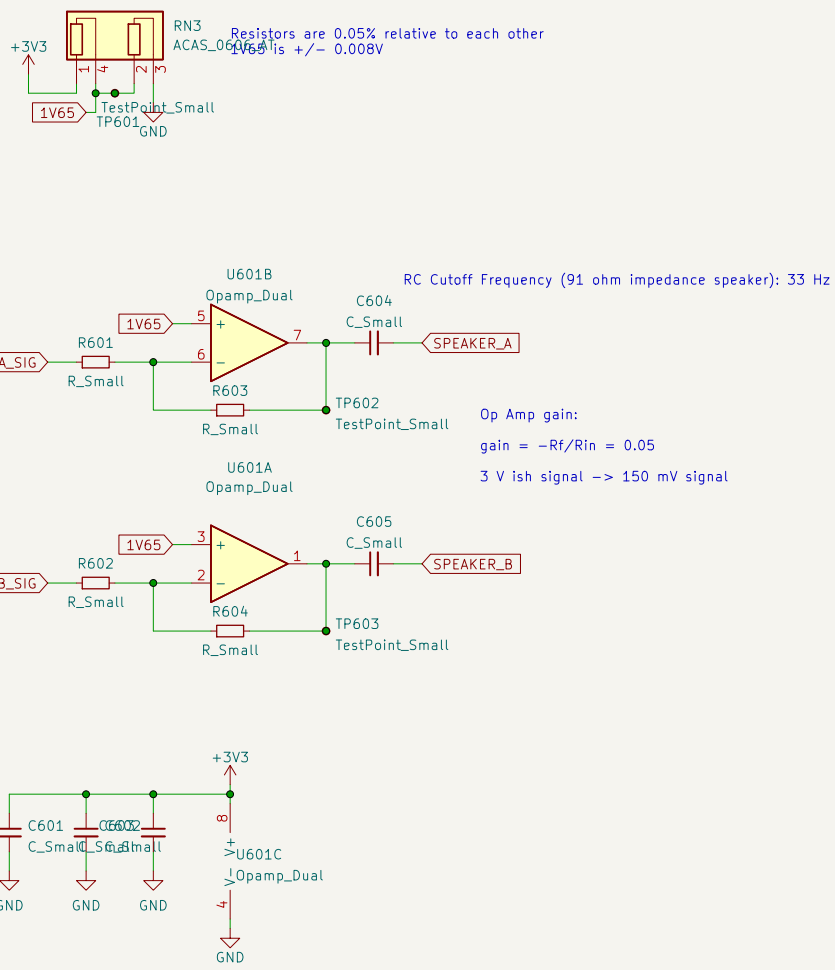
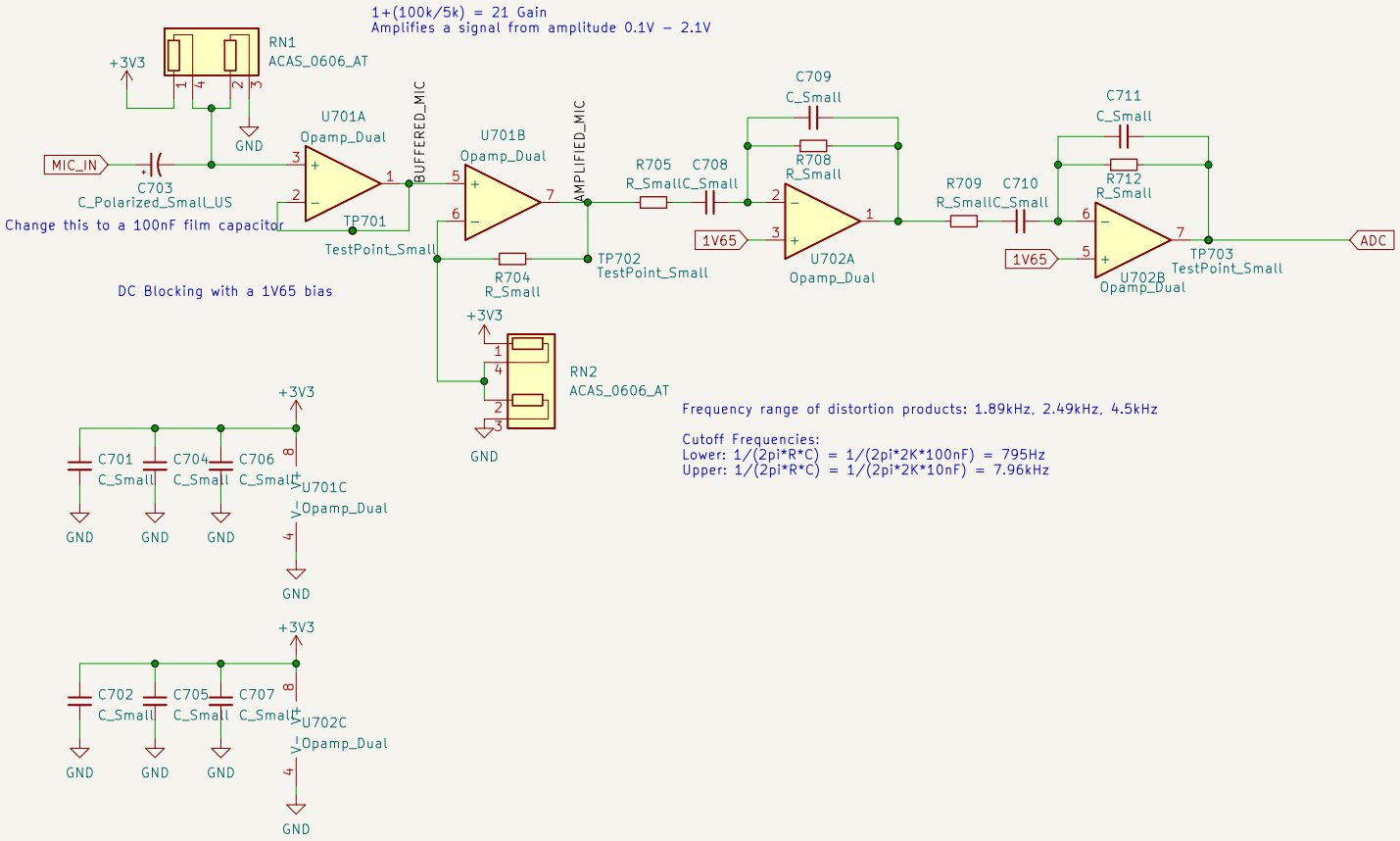
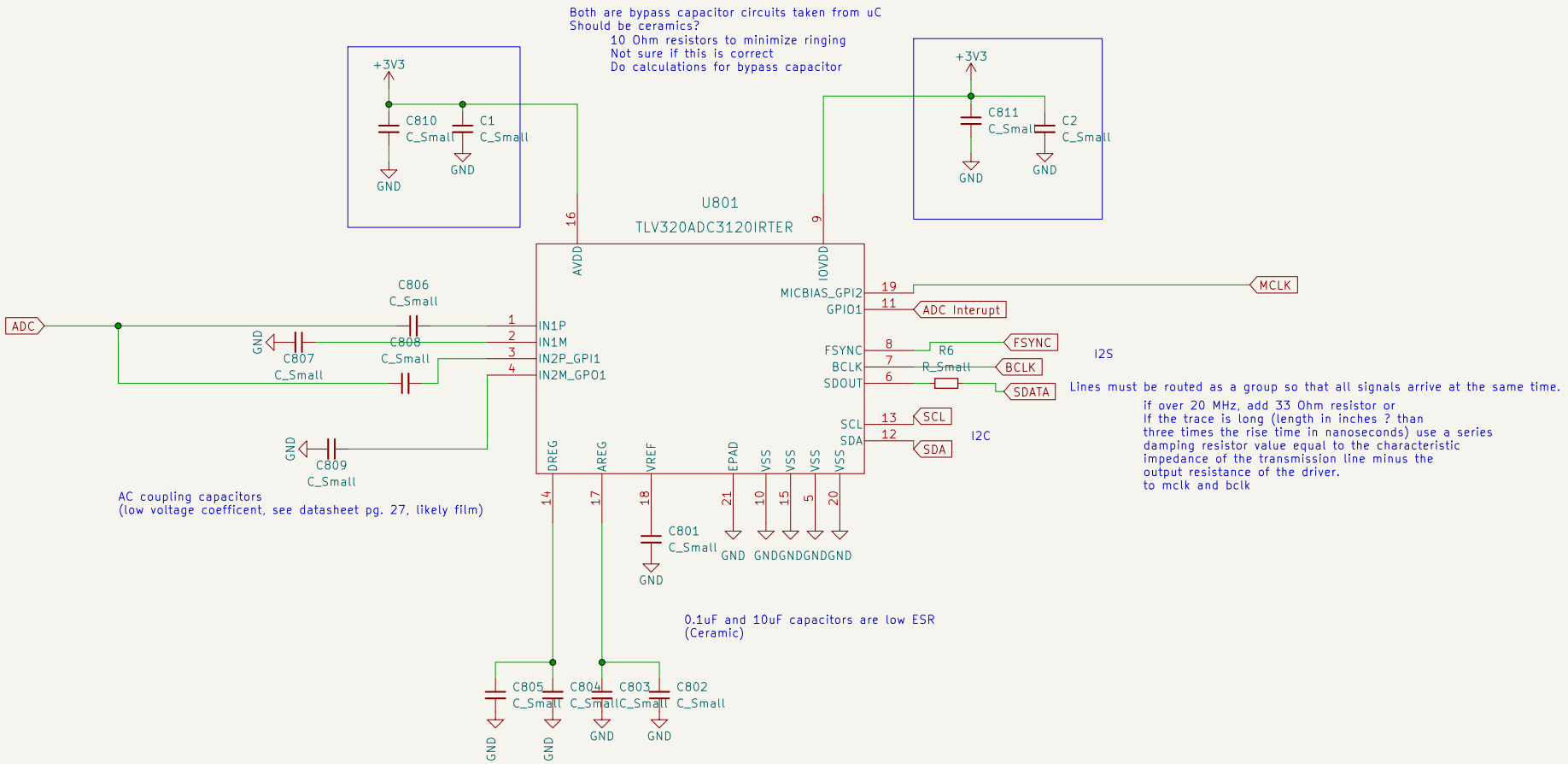


Sheet: /Speaker Amps/		
File: speaker_amp.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.2		Id: 6/8



Sheet: /Microphone Filters and Amp/		
File: microphone_filter.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.2		Id: 7/8



Sheet: /ADC/		
File: adc.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.2		Id: 8/8