

Mixed-Signal Demo PCB

A

[1] Power

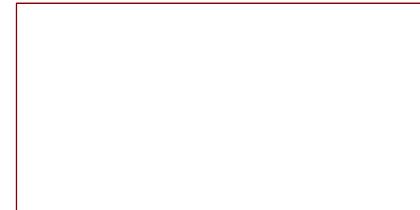
Power



File: Power.kicad_sch

[2] MCU

MCU

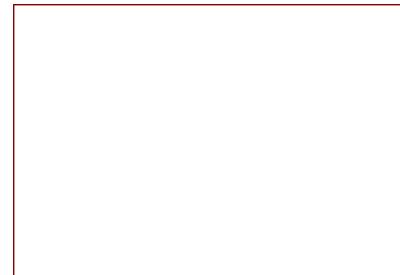


File: MCU.kicad_sch

B

[3] ADC

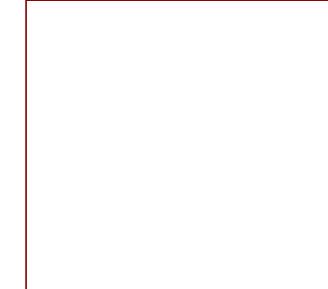
ADC



File: ADC.kicad_sch

[4] DAC

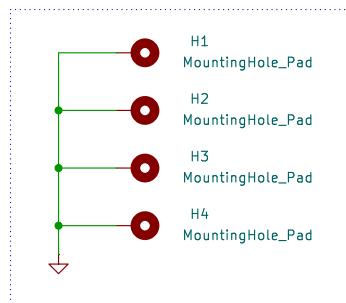
DAC



File: DAC.kicad_sch

C

[5] Mounting Holes (M3)

<https://github.com/tsokomalus/>

Sheet: /

File: mixed_signal_hw_pcb.kicad_sch

Title: Mixed-Signal-PCB-Design

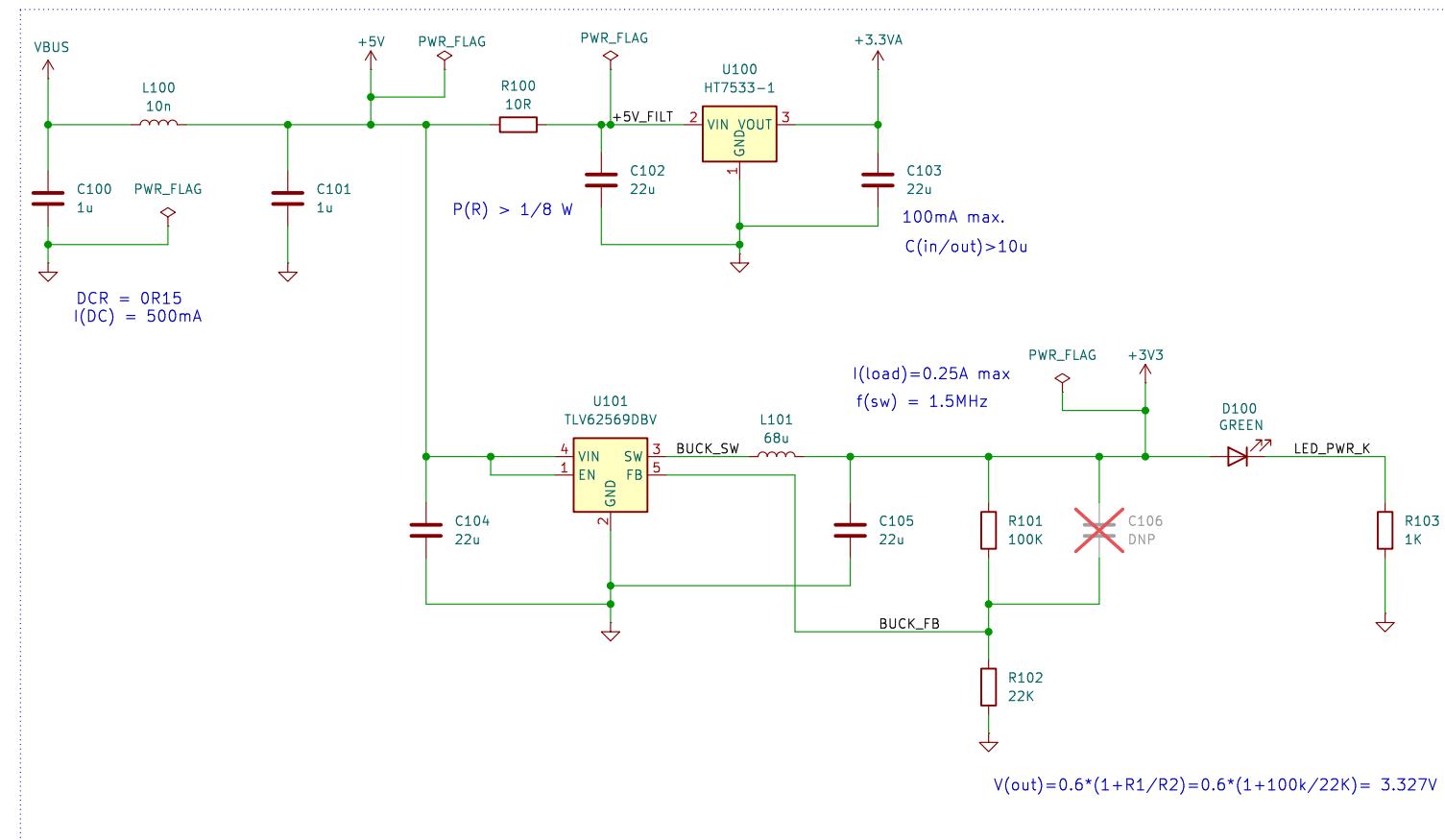
Size: A4 | Date: 2025-09-13

KiCad E.D.A. 9.0.0

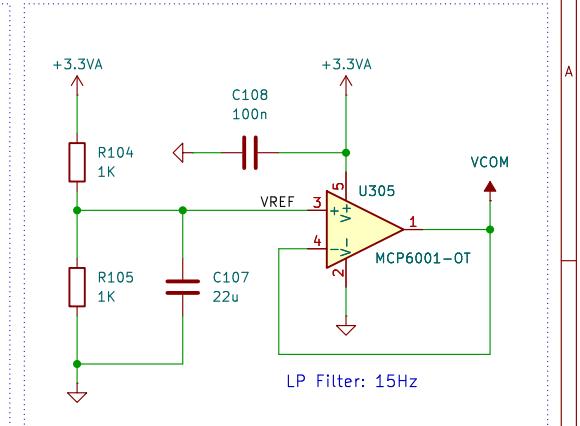
Rev: 1.0

Id: 1/5

Input Filtering, Analogue & Digital Supplies



Bias Generator



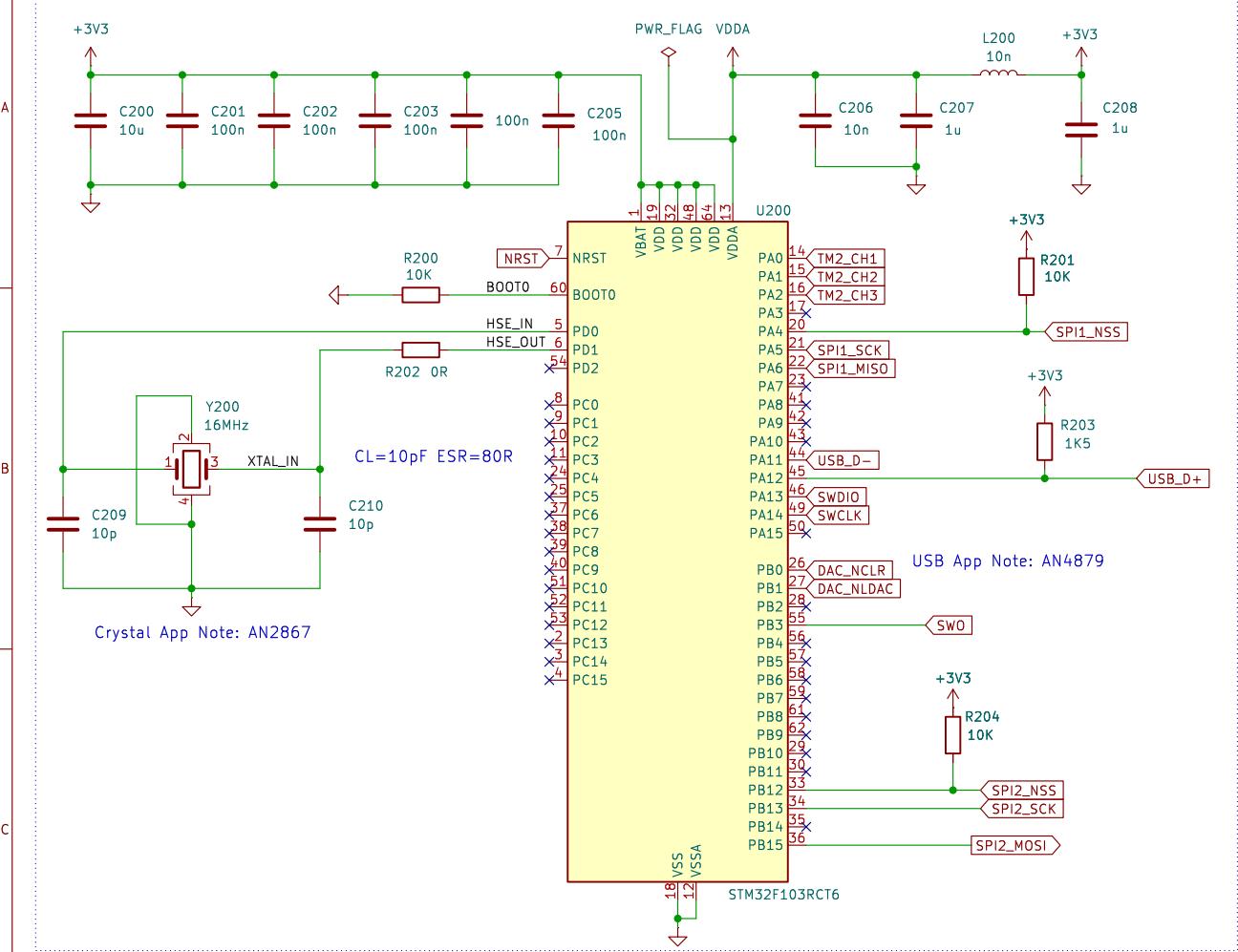
<https://github.com/tsokomalus/>

Sheet: /Power/
File: Power.kicad_sch

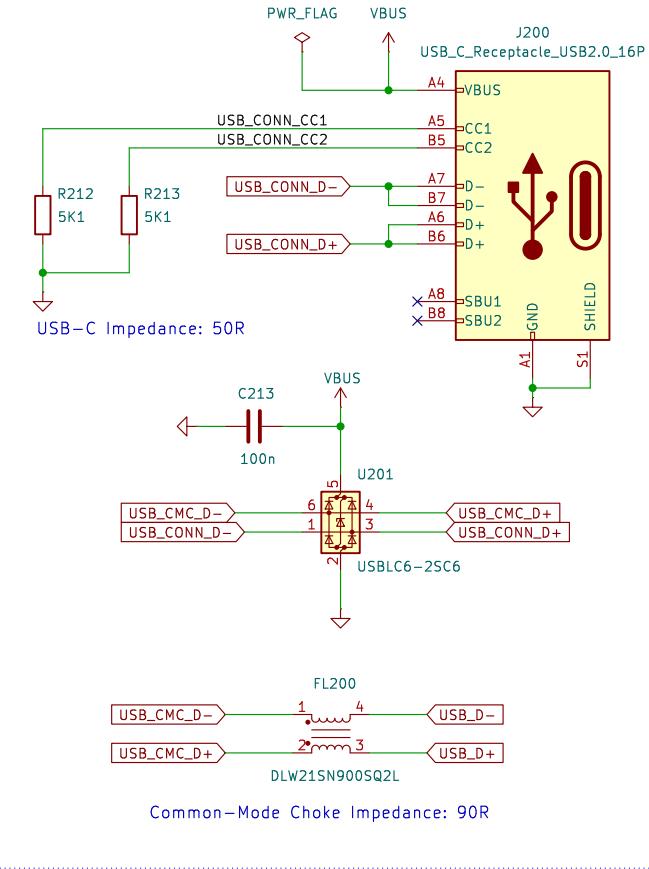
Title: Mixed-Signal-PCB-Design

Size: A4 Date: 2025-09-13
KiCad E.D.A. 9.0.0

Rev: 1.0
Id: 2/5



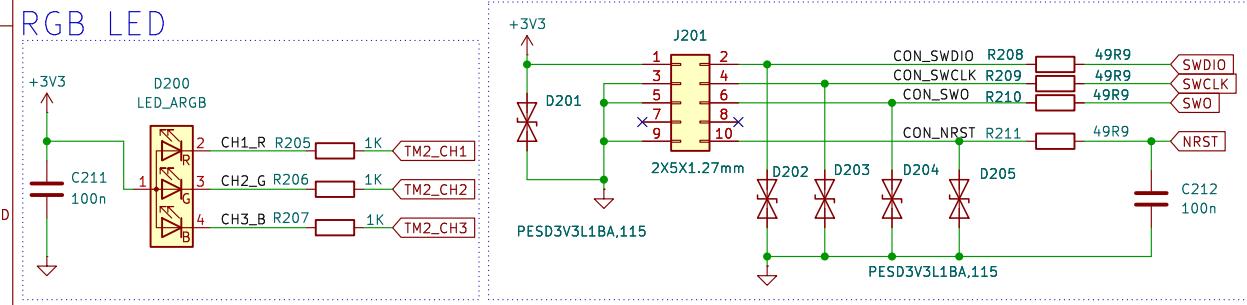
USB Type C



Signal Path:

Connector <-> ESD Protection <-> Common-Mode Choke <-> Pull-Up <-> MCU

RGB LED



<https://github.com/tsokomalus/>

Sheet: /MCU/

File: MCU.kicad_sch

Title: Mixed-Signal-PCB-De

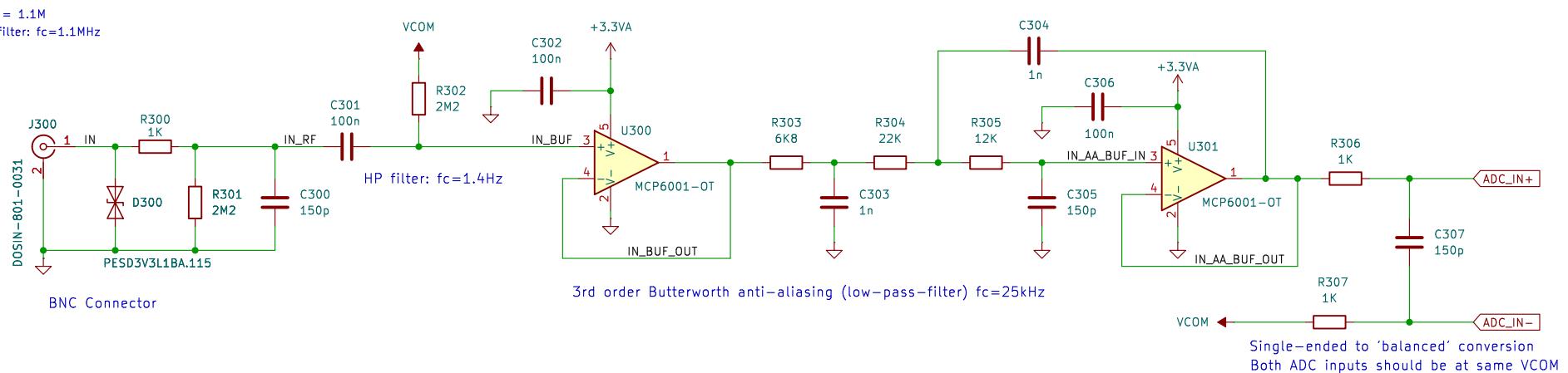
Size: A4

Rev: 1.0

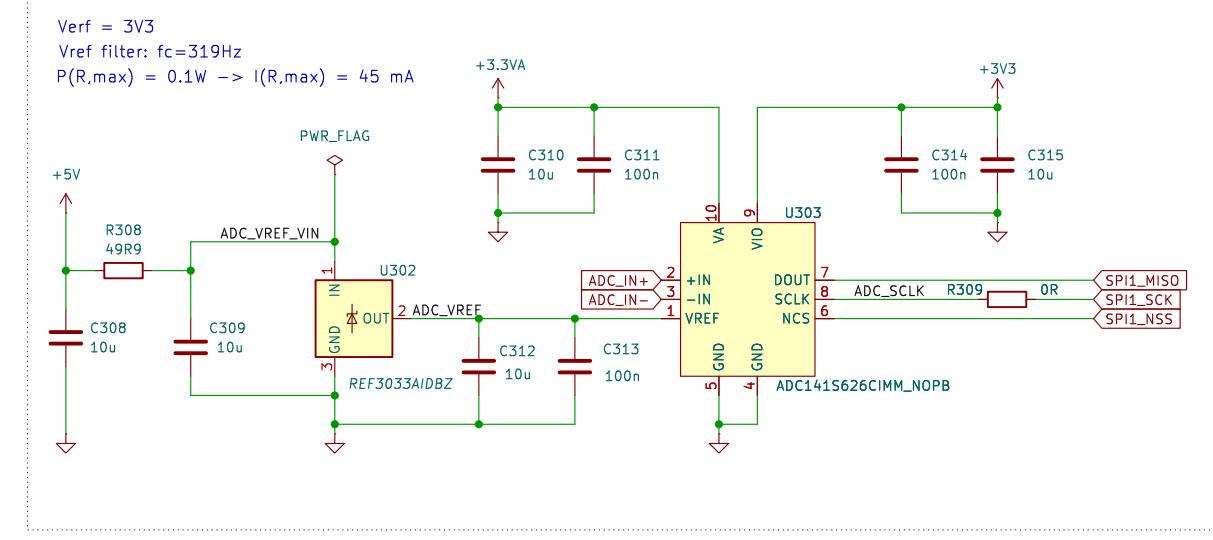
Id: 3/5

Analogue Front-End

MCP6001:I/O Rail-to-Rail, Single-Supply (1V8 to 5V), high impedance input CMOS, low bias currents, unity gain stable



14-Bit S/H ADC



<https://github.com/tsokomalusi/>

Sheet: /ADC/

File: ADC.kicad_sch

Title: Mixed-Signal-PCB-Design

Size: A4 Date: 2025-09-13

KiCad E.D.A. 9.0.

Rev: 1.0

Id: 4/5

1 2 3 4 5 6

