Mixed-Signal Demo PCB

[1] Power

Power

File: Power.kicad_sch

[2] MCU

MCU

File: MCU.kicad_sch

[3] ADC

ADC

File: ADC.kicad_sch

[4] DAC

DAC

File: DAC.kicad_sch

Mounting Holes (M3)

- H1 MountingHole
- H2 MountingHole
- H3 MountingHole
- H4 MountingHole

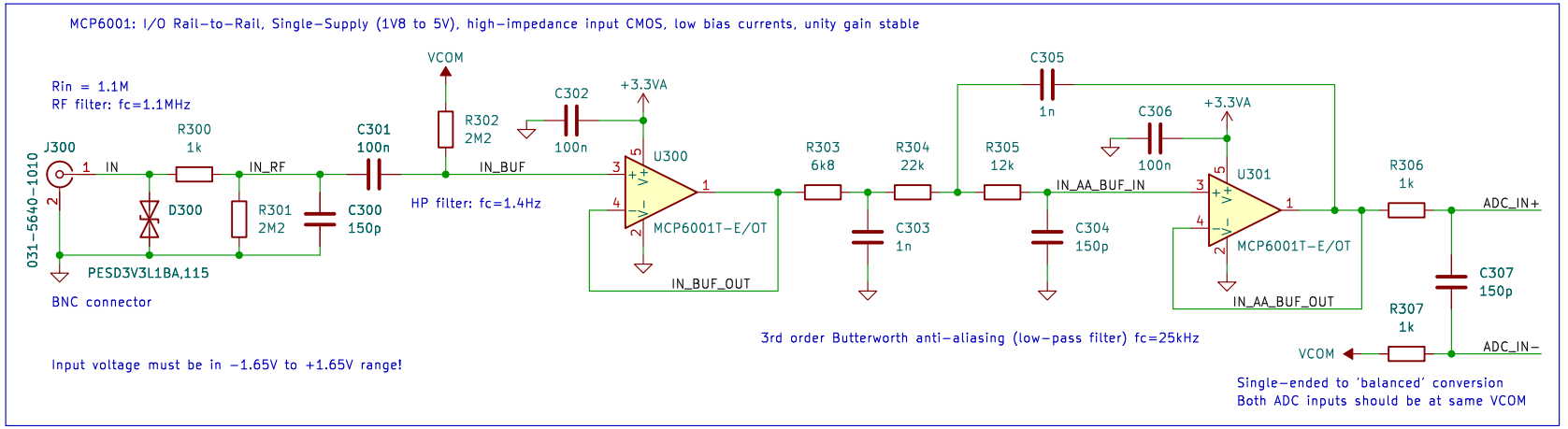
Sheet: /
File: Nemesis-MixSigPCB.kicad_sch

Title: Mixed-Signal Demo PCB

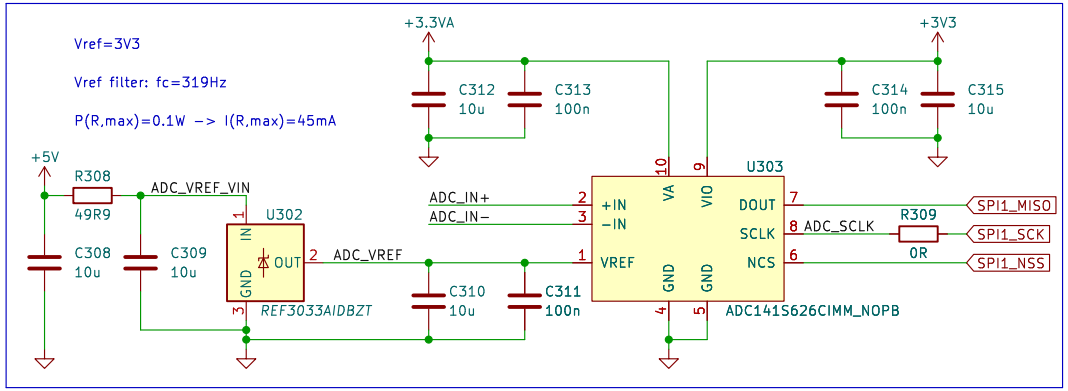
Size: A4	Date: 2022-01-04	**Rev: 0.1**
KiCad E.D.A. 9.0.6		Id: 1/5

[3] ADC & Analog Front-End

Analogue Front-End



14-Bit S/H ADC

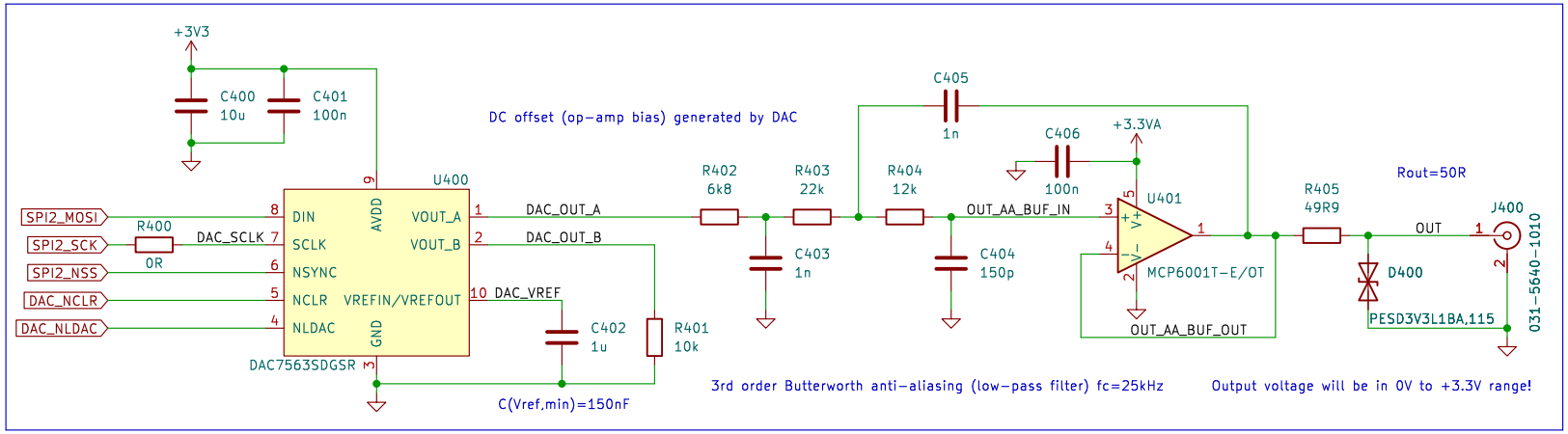


Sheet: /ADC/		
File: ADC.kicad_sch		
Title: Mixed-Signal Demo PCB		
Size: A4	Date:	**Rev: 0.1**
KiCad E.D.A. 9.0.6		Id: 2/5

[4] DAC & Analog Output Circuitry

DAC

Anti-Aliasing Filter and Output Connector (BNC)

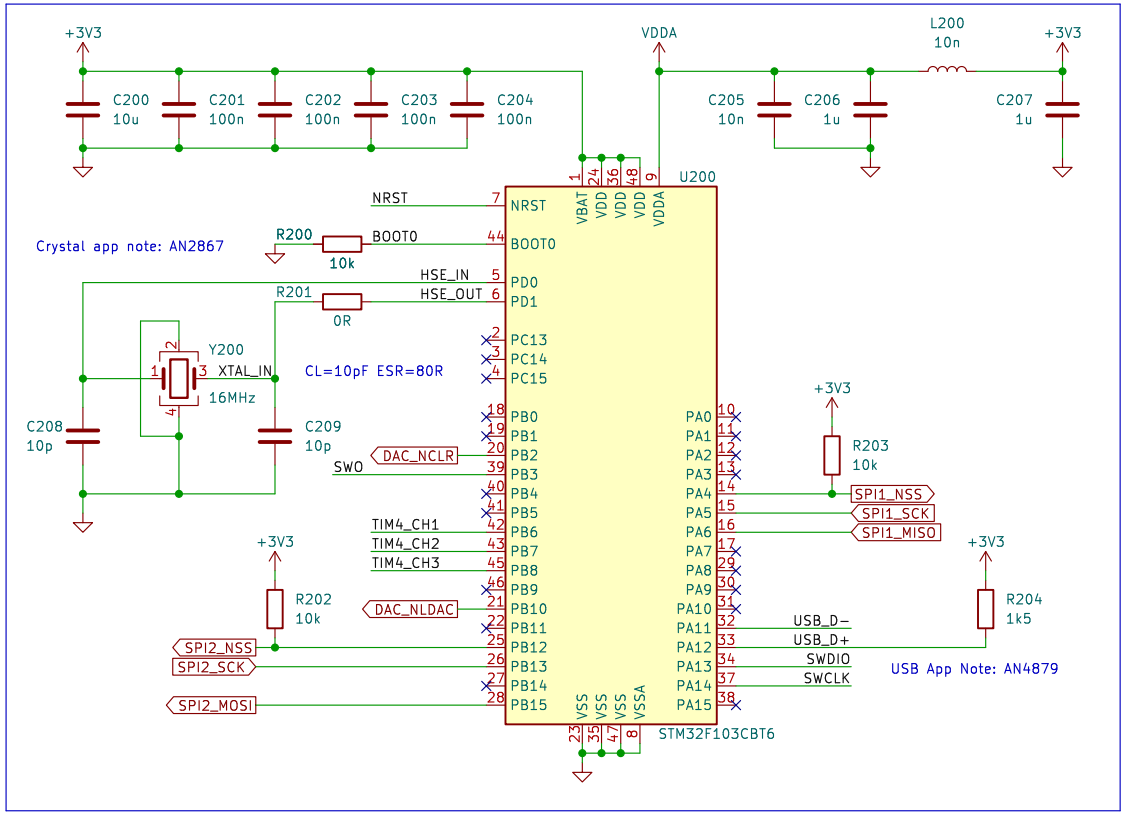


Sheet: /DAC/	
File: DAC.kicad_sch	
Title: Mixed-Signal Demo PCB	
Size: A4	Date:
KiCad E.D.A. 9.0.6	Id: 3/5

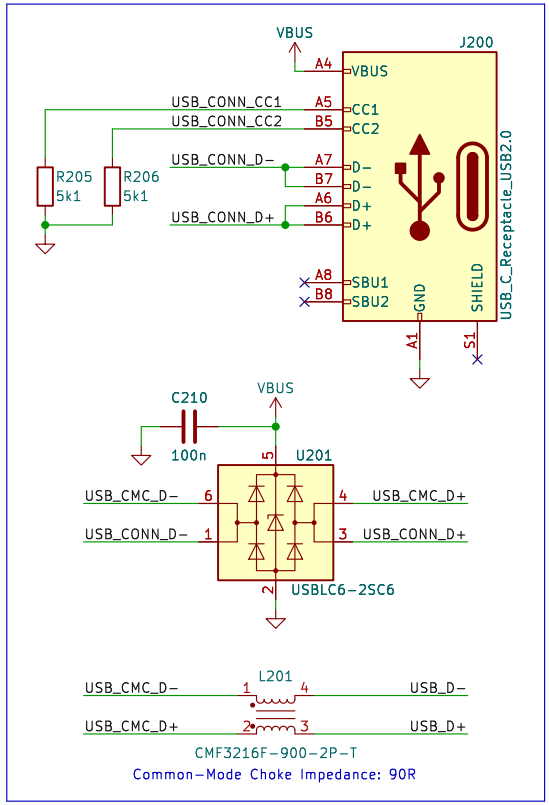
Rev: 0.1

[2] Microcontroller & USB

MCU (STM32F1)

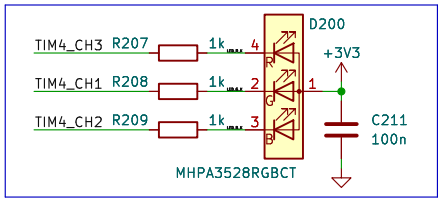


USB Type C

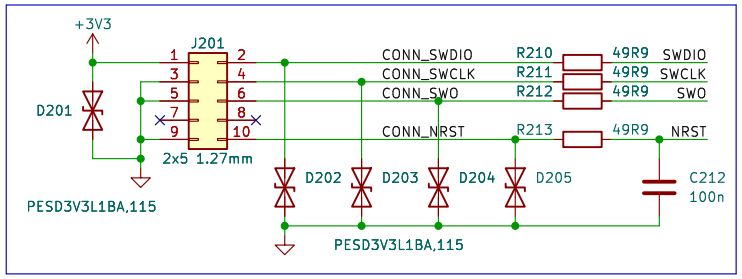


Signal Path:
Connector <–> ESD Protection <–> Common–Mode Choke <–> Pull–Up <–> MCU

RGB LED



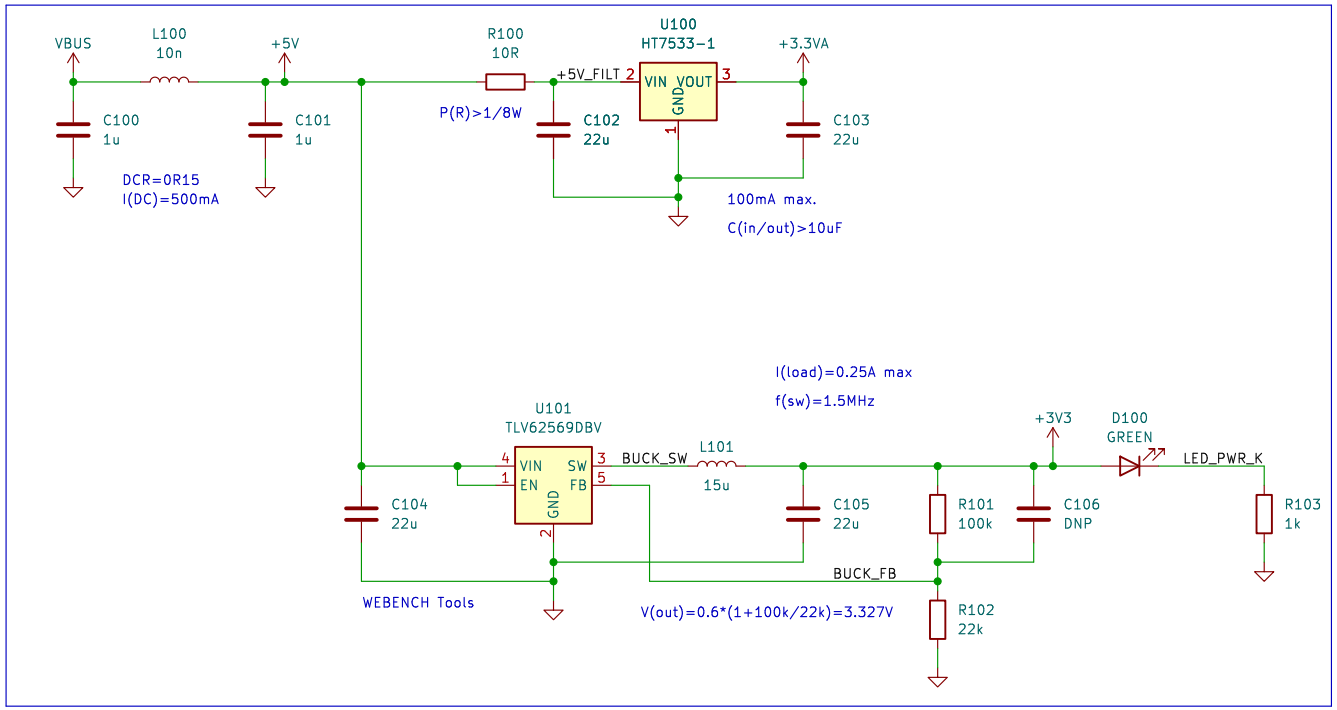
SWD Header



Sheet: /MCU/		
File: MCU.kicad_sch		
Title: Mixed–Signal Demo PCB		
Size: A4	Date: 2021–12–24	**Rev: 0.1**
KiCad E.D.A. 9.0.6		Id: 4/5

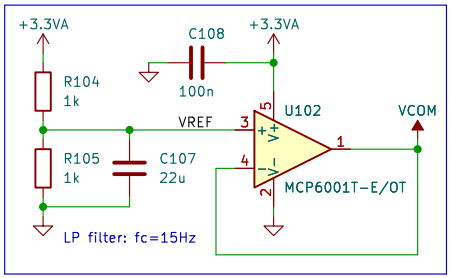
[1] Power

Input Filtering & Analogue and Digital Supplies



VBUS power comes from USB Type C connector (schematic page 2)

Bias Generator



Sheet: /Power/		
File: Power.kicad_sch		
Title: Mixed-Signal Demo PCB		
Size: A4	Date:	**Rev: 0.1**
KiCad E.D.A. 9.0.6		Id: 5/5