[1] POWER

Power

File: Power.kicad_sch

[2] MCU

MCU

File: MCU.kicad_sch

MECHANICAL

H1 MountingHole

[3] SENSORS & FEEDBACK

sense_feedback

File: sense_feedback.kicad_sch

[4] STEREO AUDIO CODEC

Audio CODEC

File: codec.kicad_sch

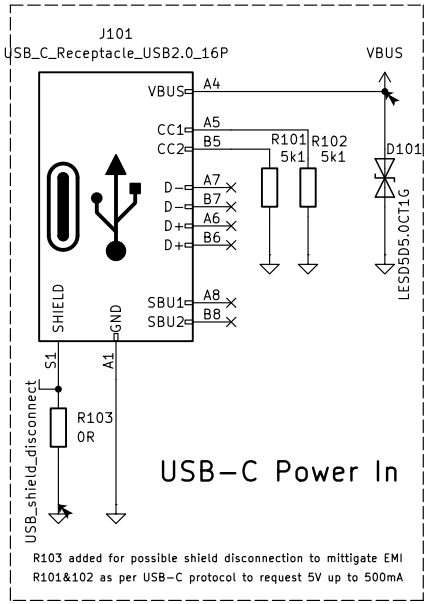
I2C Bus Topology: ESP32 <> Pull-up Resistors <> ICP20100 (BARO) <> LSM6DSL (MPU) <> RC FILTER <> ES8388 (CODEC)
SDIO Bus Topology: ESP32 <> Pull-up Resistors <> MicroSD Card
I2S Bus Topology: ESP32 <> Resistors (counter. Signal Reflection) <> ES8388 (CODEC)

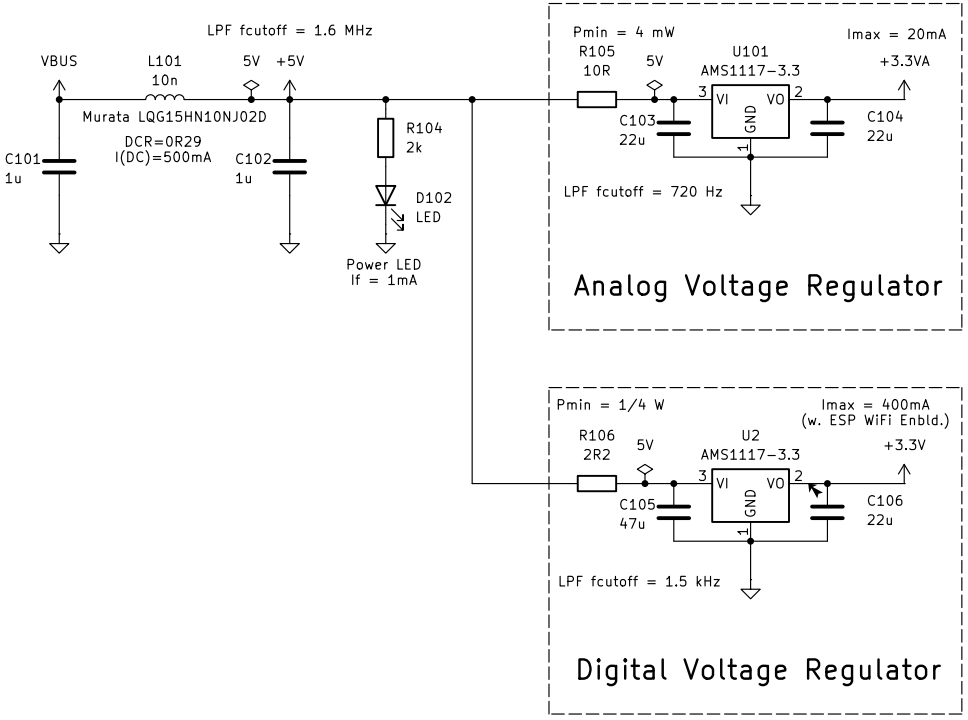
Added SD Card, Aux Insertion Monitoring
Replaced MCU w. ESP32 C6 MINI
BUCHAREST APPLIED STEAM MUSEUM

Sheet: /
File: kicad_soundcard_dev_v0.kicad_sch

Title: BASM SOUNDCARD DEV V0

Size: A4	Date: 2025-04-29	**Rev: 1**
KiCad E.D.A. 8.0.8		Id: 0/5





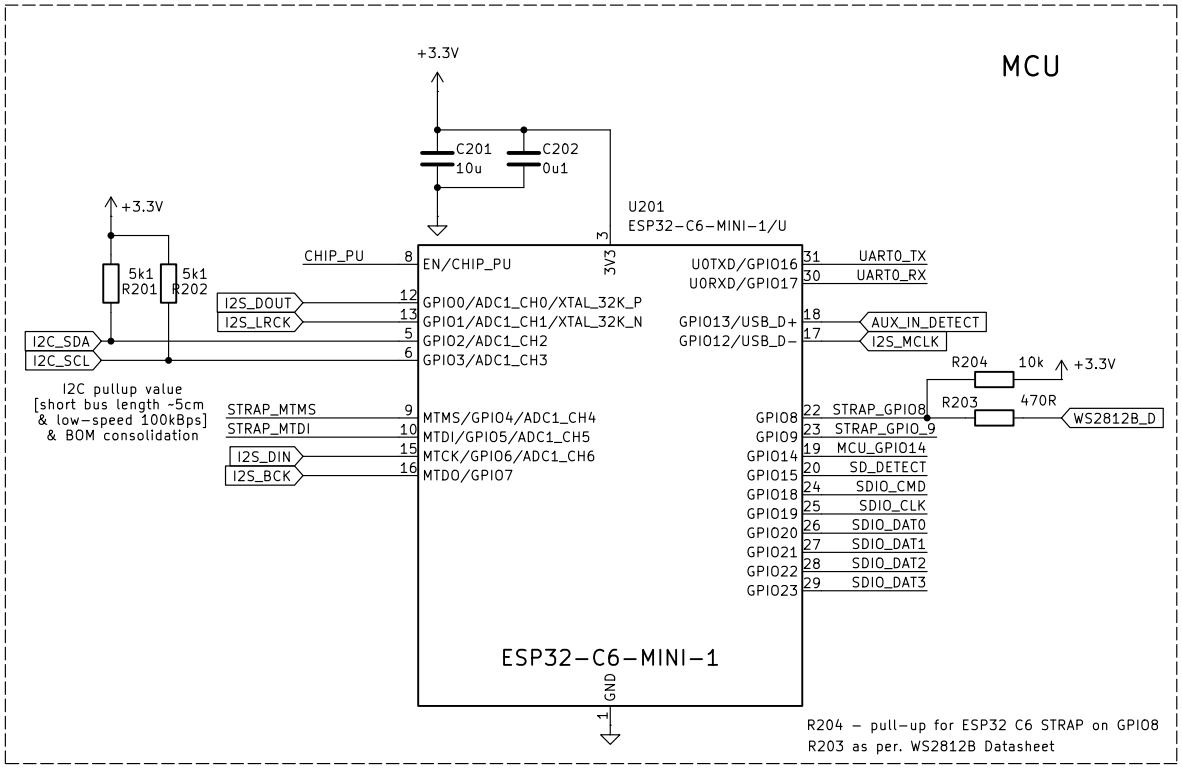
Lowered Power Rating on Analog 3.3V Rail regulator & passives

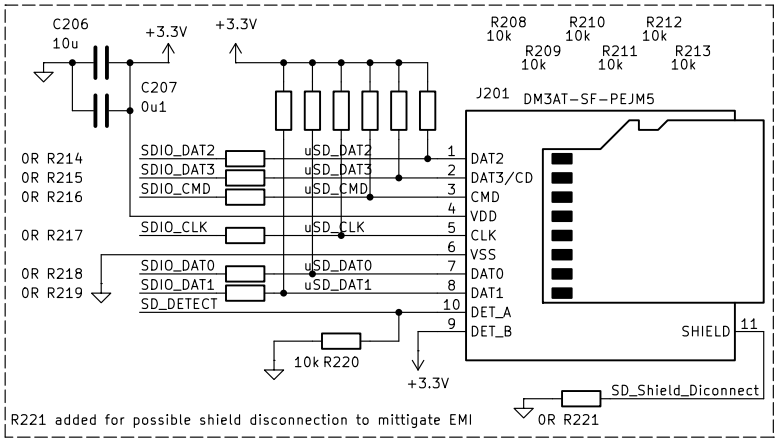
BUCHAREST APPLIED STEAM MUSEUM

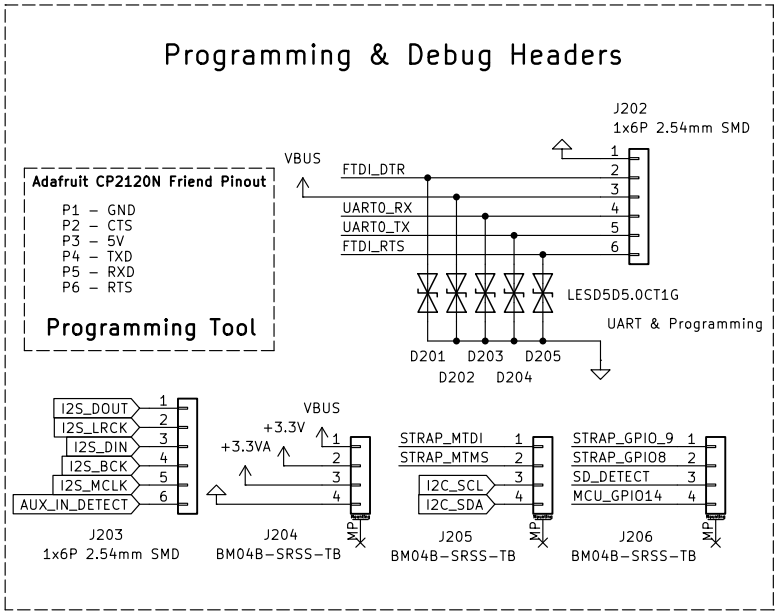
Sheet: /Power/
File: Power.kicad_sch

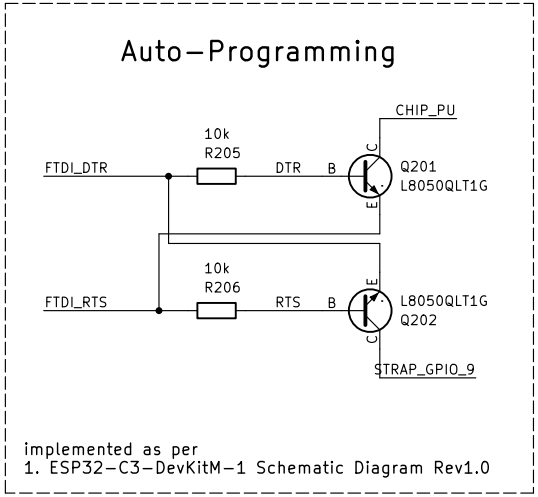
Title: BASM SOUNDCARD DEV V0

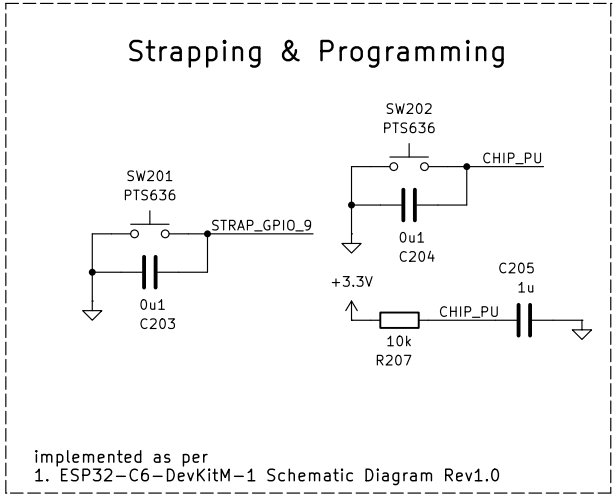
Size: A4	Date: 2025−04−29	**Rev: 1**
KiCad E.D.A. 8.0.8		Id: 1/5











Upgraded debug ports to JST SH Series
Switches uSD from SPI to SDIO
Replaced ESP32 C3 MINI w. ESP32 C6 MINI

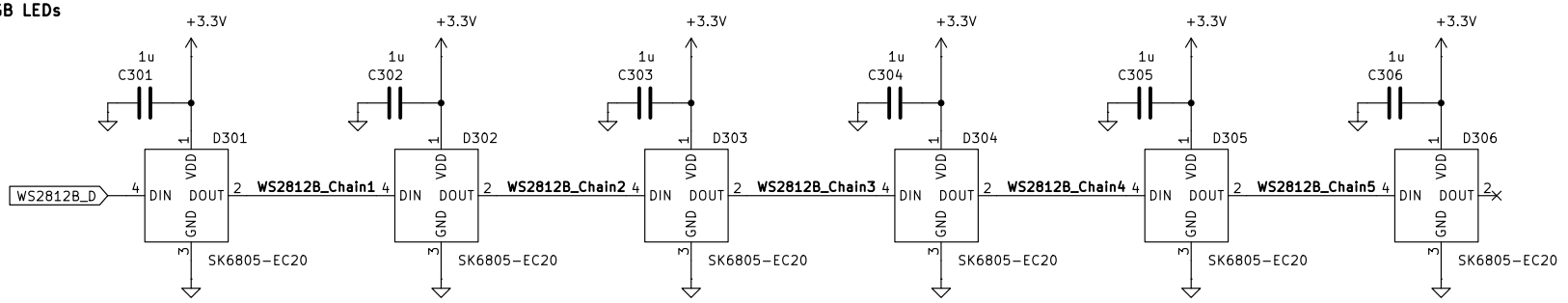
BUCHAREST APPLIED STEAM MUSEUM

Sheet: /MCU/
File: MCU.kicad_sch

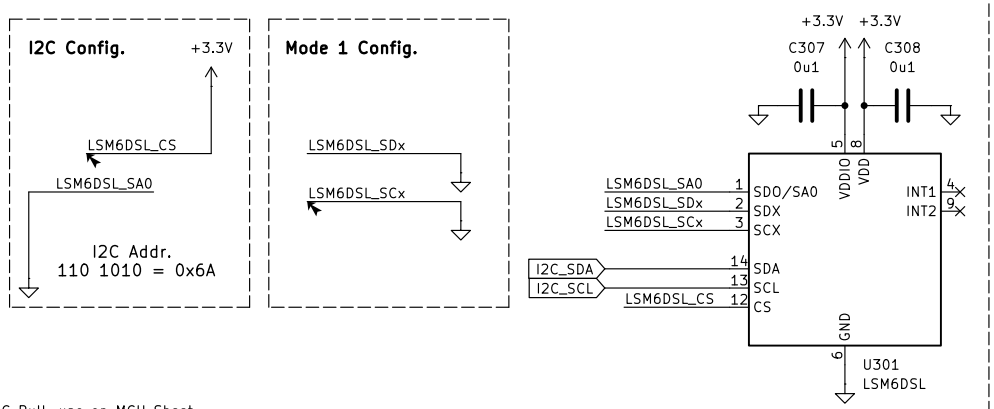
Title: BASM SOUNCARD DEV V0

Size: A4	Date: 2025-04-29	**Rev: 1**
KiCad E.D.A. 8.0.8		Id: 2/5

RGB LEDs

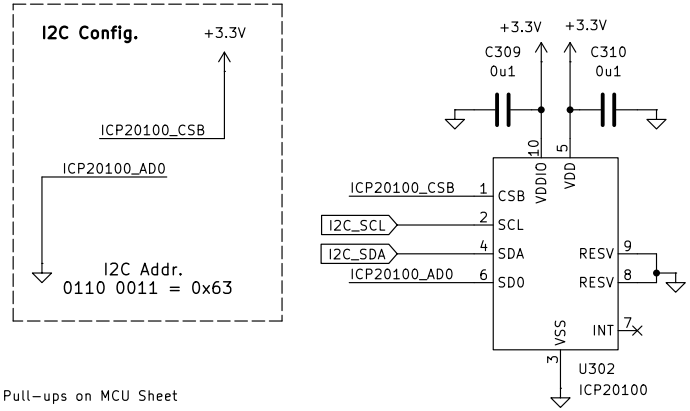


6-DoF IMU



I2C Pull-ups on MCU Sheet
CS tied HI for I2C (App. Note 6.1)
LSM6DSL Connections as per. Application Hints Mode 1 (App. Note 7.1)

Barometric Sensor



I2C Pull-ups on MCU Sheet
CSB tied HI for I2C (App. Note 4)
ICP20100 Connections as per. Application Notes

Changed RGB LED to SK6805-EC20

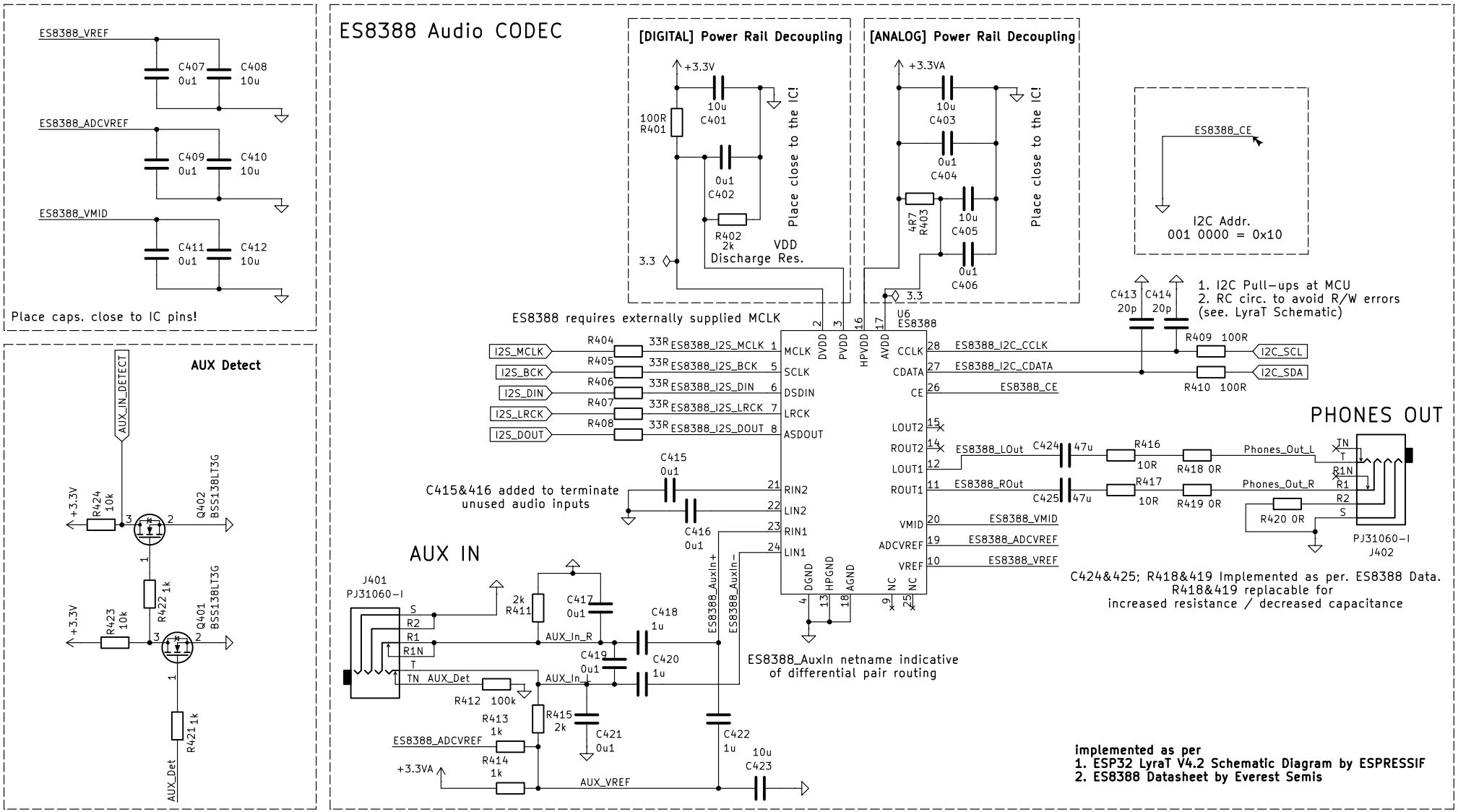
BUCHAREST APPLIED STEAM MUSEUM

Sheet: /sense_feedback/
File: sense_feedback.kicad_sch

Title: BASM SOUNDCARD DEV V0

Size: A4	Date: 2025-04-29	**Rev: 1**
KiCad E.D.A. 8.0.8		Id: 3/5

ES8388 Audio CODEC



Connected unused CODEC inputs to GND via caps.
Added an Aux-Insert circuit
Replaced TRS Audio Jack w. TRRS Jacks w. NC contacts

BUCHAREST APPLIED STEAM MUSEUM

Sheet: /Audio CODEC/
File: codec.kicad_sch

Title: BASM SOUNDCARD DEV V0

Size: A4	Date:	**Rev: 1**
KiCad E.D.A. 8.0.8		Id: 4/5