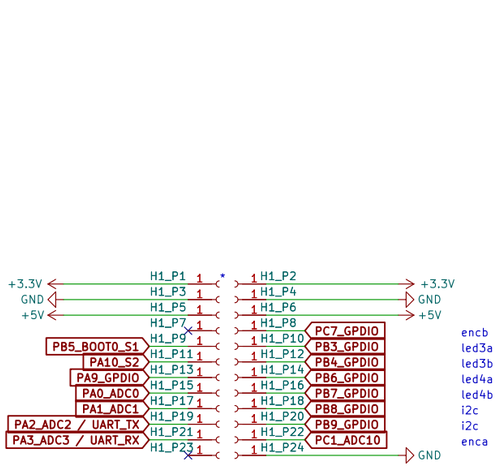
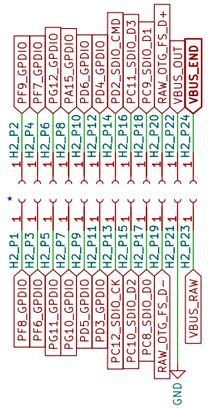
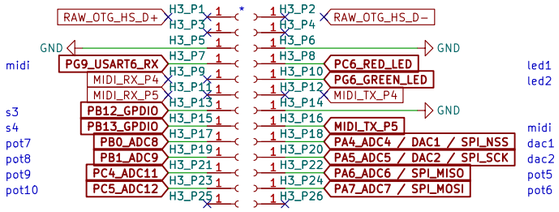
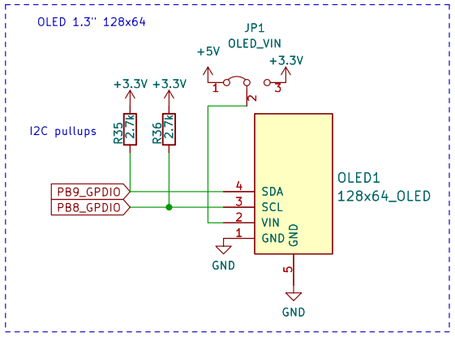
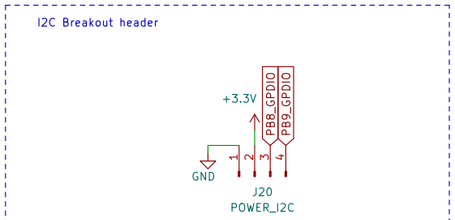
Ksoloti headers











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audio_io
checked
File: audio_io.kicad_sch

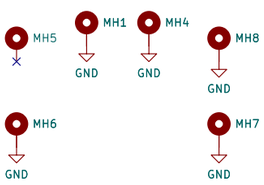
pots
checked
File: pots.kicad_sch

leds_switches
checked
File: leds_switches.kicad_sch

midi
checked
File: midi.kicad_sch

cv_expansion
checked
File: cv.kicad_sch

radio
checked
File: radio.kicad_sch



CHANGELOG

changelog

File: changelog.kicad_sch

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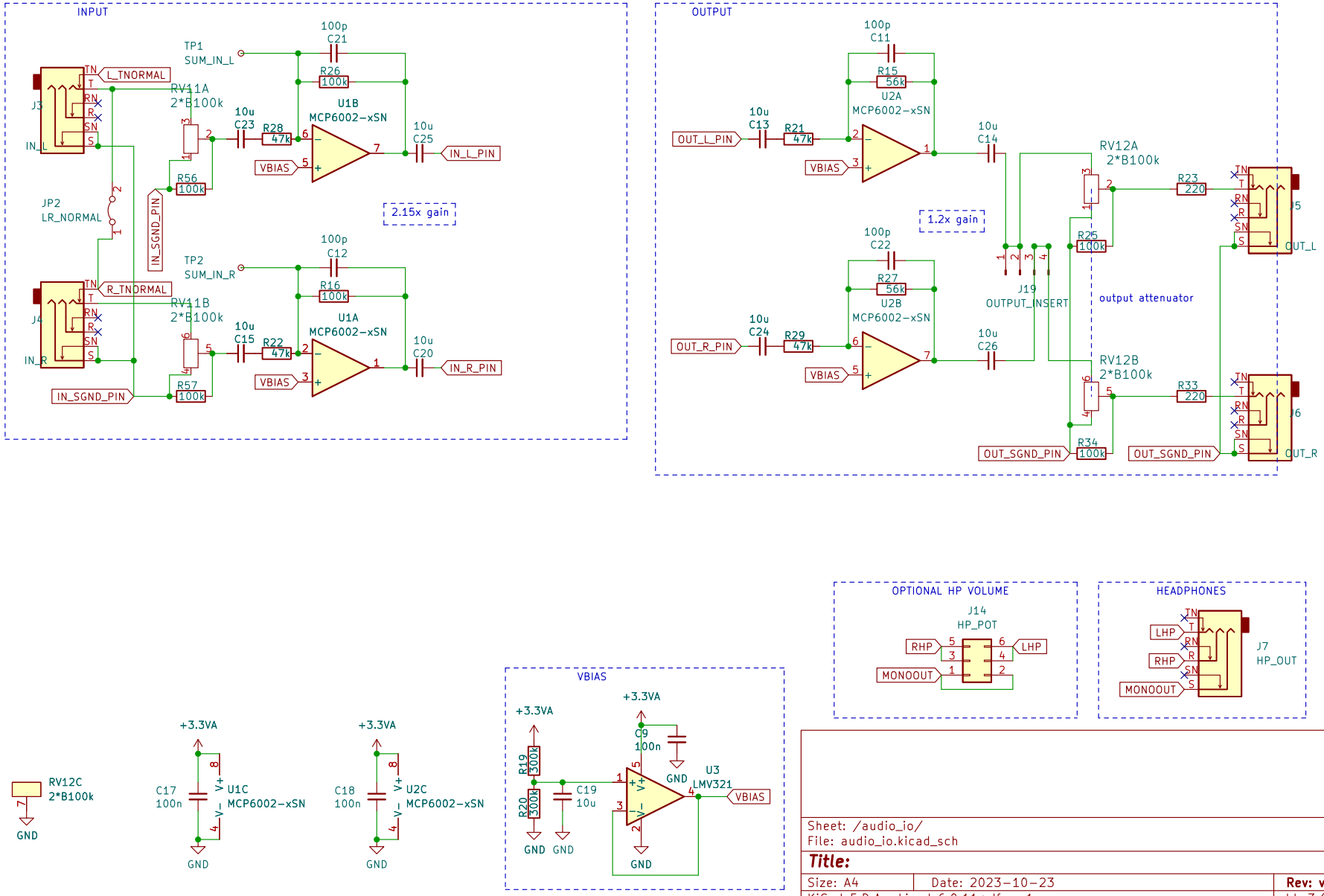
Size: A3	Date: 2023-10-23	**Rev: v0.4**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 1/9


INPUT
TP1
SUM_IN_L
100p
C21
R26
100k
L_TNORMAL
RV11A
2*B100k
J3
IN_L
10u
C23
R28
47k
U1B
MCP6002-xSN
10u
C25
IN_L_PIN
R56
100k
IN_SGND_PIN
JP2
LR_NORMAL
VBIAS
2.15x gain
TP2
SUM_IN_R
100p
C12
R16
100k
R_TNORMAL
RV11B
2*B100k
J4
IN_R
10u
C15
R22
47k
U1A
MCP6002-xSN
10u
C20
IN_R_PIN
R57
100k
IN_SGND_PIN
OUTPUT
100p
C11
R15
56k
U2A
MCP6002-xSN
10u
C13
R21
47k
OUT_L_PIN
10u
C14
RV12A
2*B100k
R23
220
J5
OUT_L
1.2x gain
100p
C22
R27
56k
U2B
MCP6002-xSN
10u
C24
R29
47k
OUT_R_PIN
10u
C26
J19
OUTPUT_INSERT
output attenuator
R25
100k
RV12B
2*B100k
R33
220
J6
OUT_R
R34
100k
OUT_SGND_PIN
OUT_SGND_PIN
OPTIONAL HP VOLUME
J14
HP_POT
RHP
LHP
MONOOUT
HEADPHONES
J7
HP_OUT
LHP
RHP
MONOOUT
RV11C
2*B100k
GND
RV12C
2*B100k
GND
+3.3VA
C17
100n
U1C
MCP6002-xSN
GND
+3.3VA
C18
100n
U2C
MCP6002-xSN
GND
VBIAS
+3.3VA
R19
300k
R20
300k
C19
10u
GND
GND
+3.3VA
C9
100n
GND
U3
LMV321
VBIAS
GND
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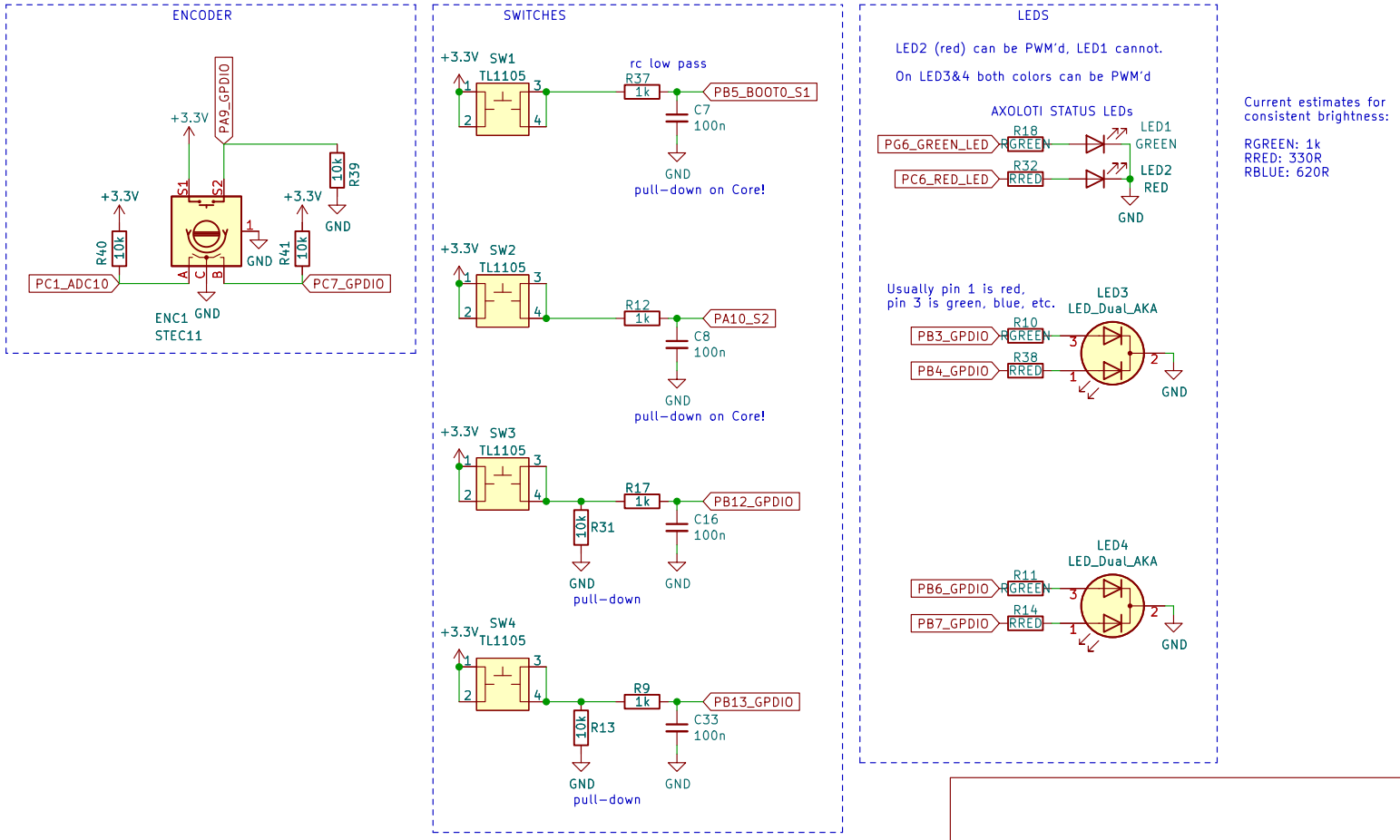
File: audio_io.kicad_sch
Title:
Size: A4
Date: 2023-10-23
Rev: v0.4
KiCad E.D.A. kicad 6.0.11+dfsg-1
Id: 3/9



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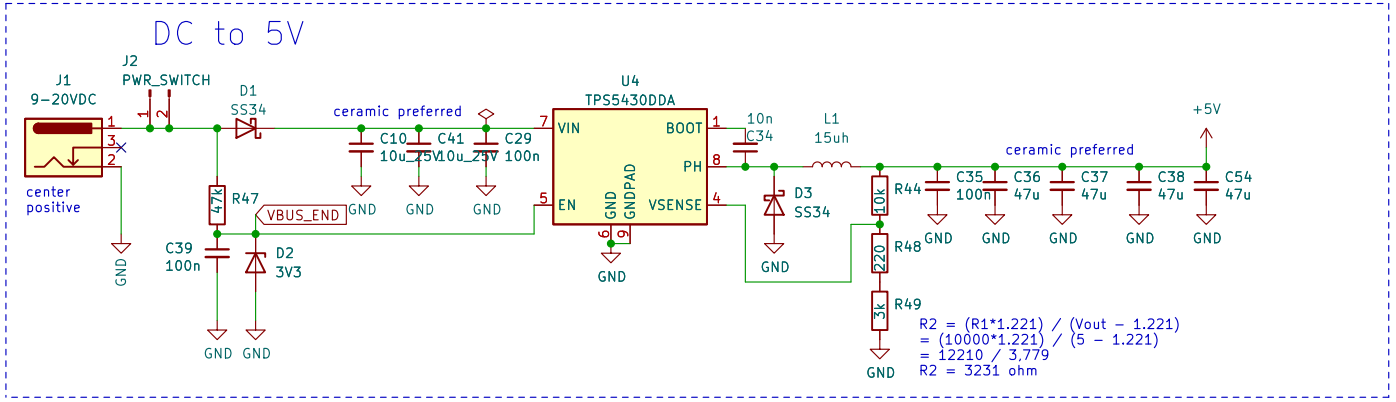
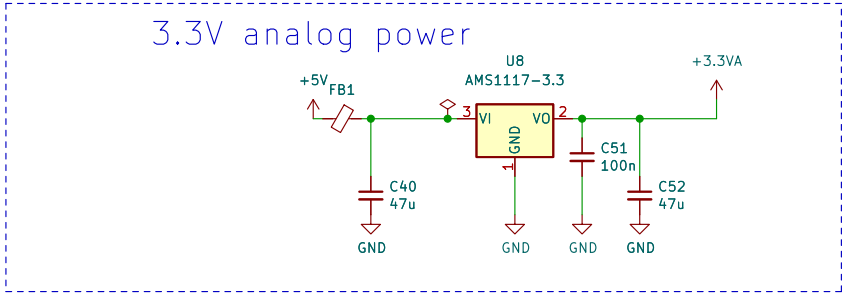
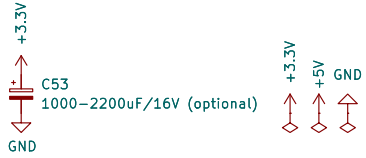
Title:

Size: A4	Date: 2023-10-23	**Rev: v0.4**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 4/9







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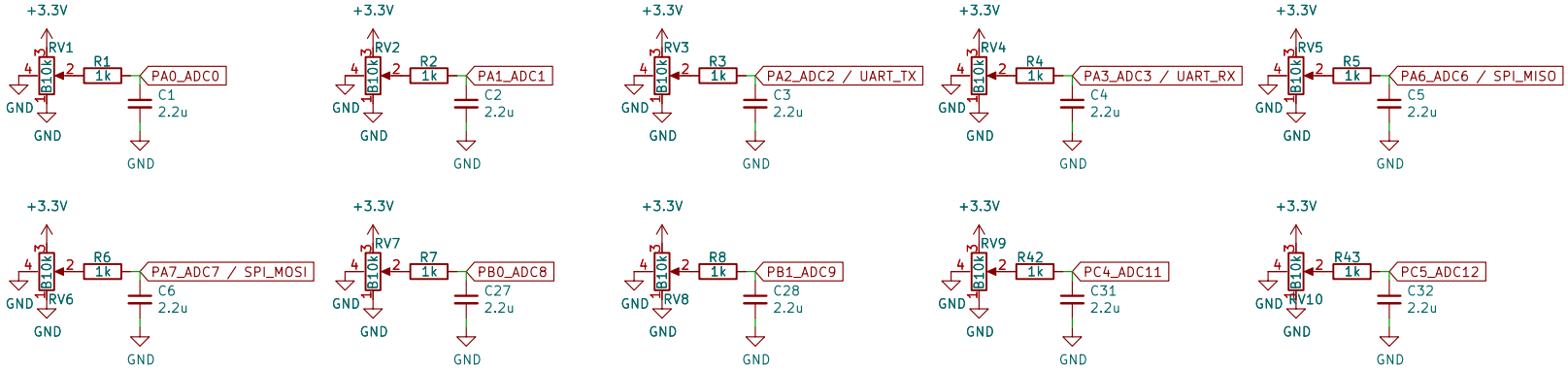
Title:		
Size: A4	Date: 2023-10-23	**Rev: v0.4**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 5/9

rc lowpass cutoff ca. 72 Hz
full transient within ca. 10 ms



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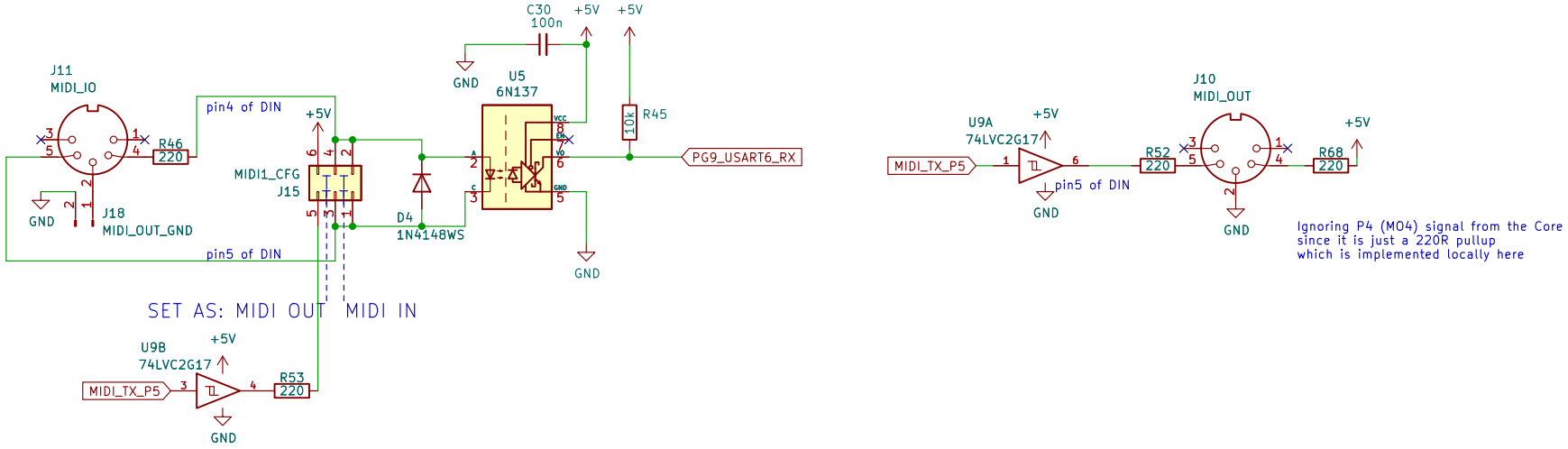
Size: A4	Date: 2023-10-23	**Rev: v0.4**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 6/9



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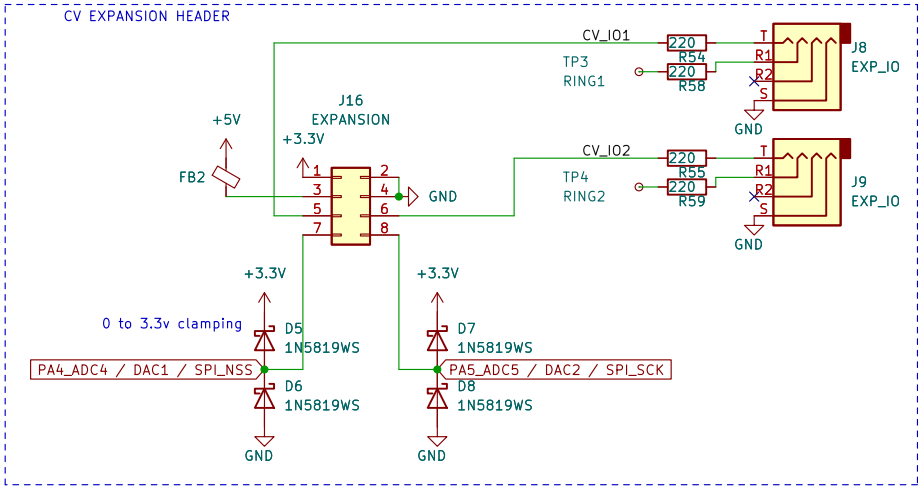
Size: A4	Date: 2023-10-23	**Rev: v0.4**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 7/9



Connects to PA4, PA5 with overvoltage/overcurrent protection.
A CV Expander module is available to create modular synth control voltages.

You could also use PA4, PA5, as inputs and connect two external voltage sources, like foot switches, paddles, ribbon controllers, expression pedal, FSR...

In some cases you probably want to include 3.3V from J16.
You can solder a wire from 3.3V to the ring test point(s) labeled RINGx.
wire your device accordingly and use a stereo 3.5mm cable.

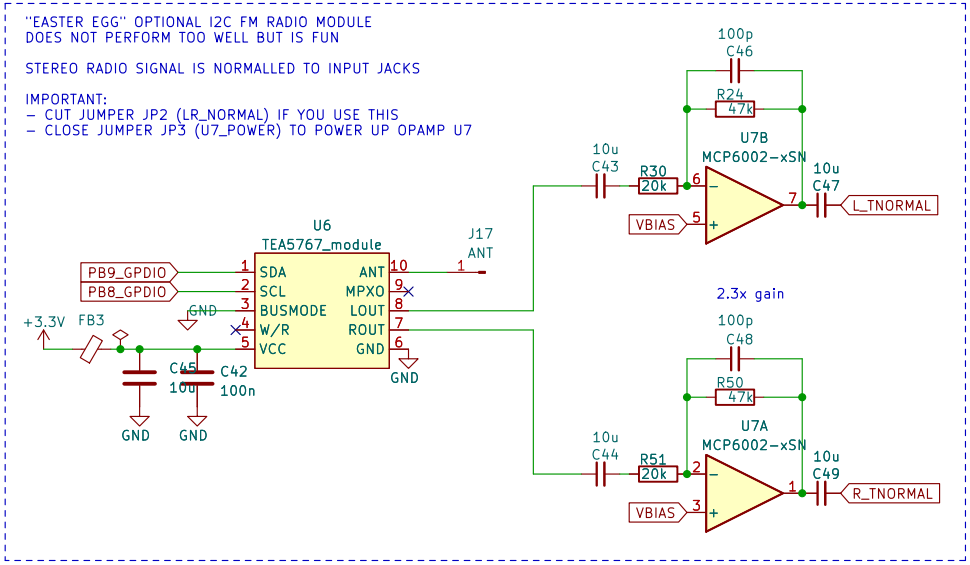
T = control signal
R = 3.3V
S = GND
[UNTESTED]

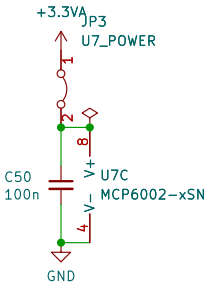
In case you need to run wires
to the other side of the PCB -> MH9 EMPTY_HOLE

Sheet: /cv_expansion/
File: cv.kicad_sch

Title:

Size: A4	Date: 2023-10-23	**Rev: v0.4**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 8/9





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Title:		
Size: A4	Date: 2023-10-23	**Rev: v0.4**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 9/9

v0.1 done – ordered 2023/09/07

- initial commit

v0.2 done – ordered 2023/09/21

- Change OUT EXPANSION stereo 3.5mm jack to two mono jacks (so no adapter required), slimmer and more readily available PJ-320A footprint
- Add 3.3V to CV expansion header (if external pots etc. are to be connected)
- Add GND jumper to MIDI configuration header
- Adjust DIN MIDI socket footprint
- Bottom panel: additional M3 screw holes for more stability
- Fix swapped LED1 and LED2 labels (to conform with Axo tradition): LED1 green, LED2 red
- Swap colors on LED3 and LED4 (to conform with LED1 and LED2. Now the "color 1" of each dual-color LED is green/blue and "color2" is red)
- Increase LED resistors to 1k (green), 680R (red)
- Move encoder east by 2.5mm
- Add footprint for optional 1000uF cap on the 5V rail (if you encounter Core reboot when (un)plugging DC)
- Use 0805 resistors for LEDs and place in accessible spot

v0.3 done – ordered 2023/10/23

- Move two mounting holes 2mm north
- Add SUM_IN_* pads for summing audio input signals. External cap and resistor required!
- Add OUTPUT_INSERT header. Can be set up as a send-receive before the output volume pot.
- Increase vertical board dimension. Adjust pot, buttons, LED vertical spacing
- Adjust gain of U7 (optional radio module amp)

v0.4

- Reroute some traces that were at risk of touching potentiometer chassis.
- Use NRJ6HF footprints for Line I/O Jacks instead of NRJ4HF.
- Use combined footprint for alternative (LED-illuminated) switches.
- Move optional HP pot header north by 5mm.
- Tweak case dimensions, thicker silkscreen for white case option

Sheet: /changelog/		
File: changelog.kicad_sch		
Title:		
Size: A4	Date: 2023-10-23	**Rev: v0.4**
KiCad E.D.A. kicad 6.0.11+dfsg-1		Id: 9/9