

power



File: power.kicad_sch

coreboard



File: coreboard.kicad_sch

mechanics



File: mechanics.kicad_sch

audio-codec



File: audio-codec.kicad_sch

audio-inputs



File: audio-inputs.kicad_sch

audio-outputs



File: audio-outputs.kicad_sch

audio-headphones



File: audio-headphones.kicad_sch

control-voltage



File: control-voltage.kicad_sch

spdif



File: spdif.kicad_sch

usb



File: usb.kicad_sch

midi



File: midi.kicad_sch

control-chain

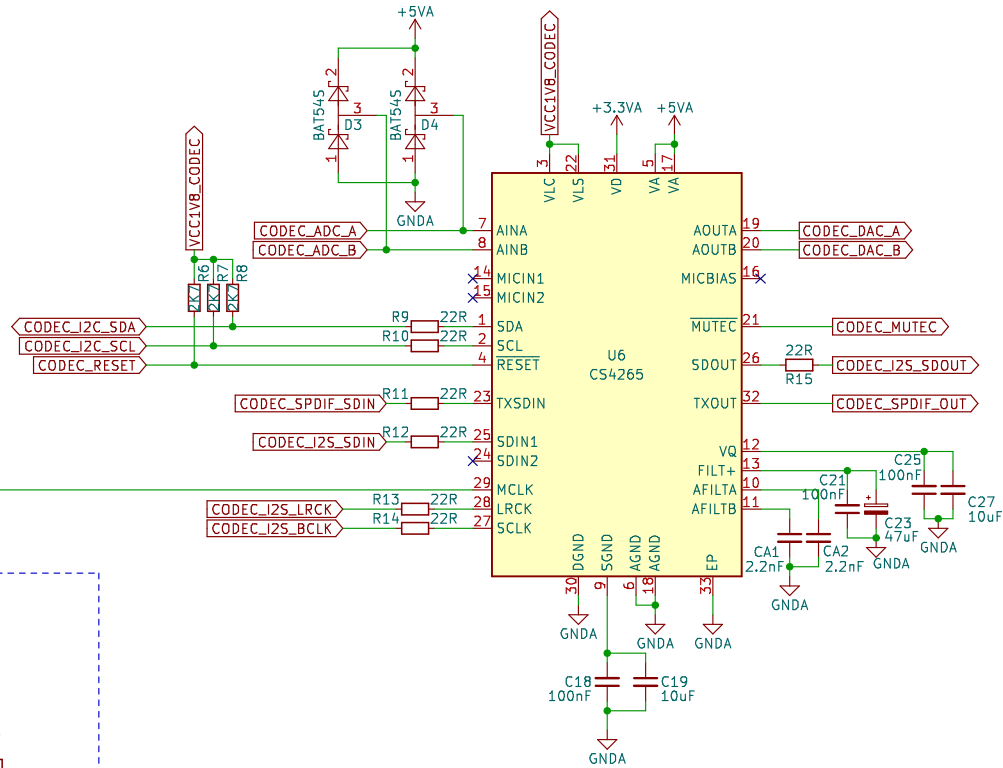
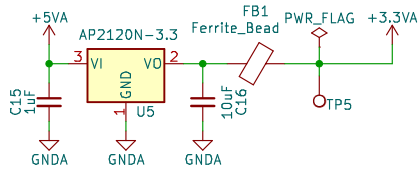


File: control-chain.kicad_sch

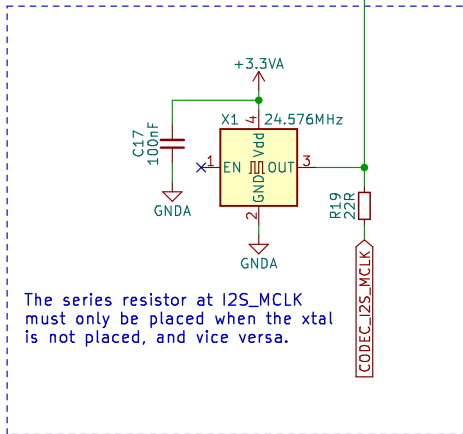
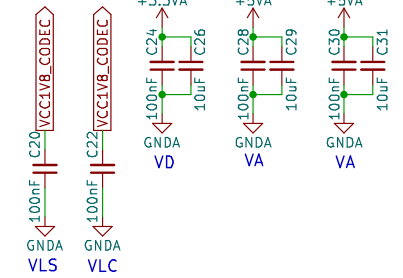
Notes

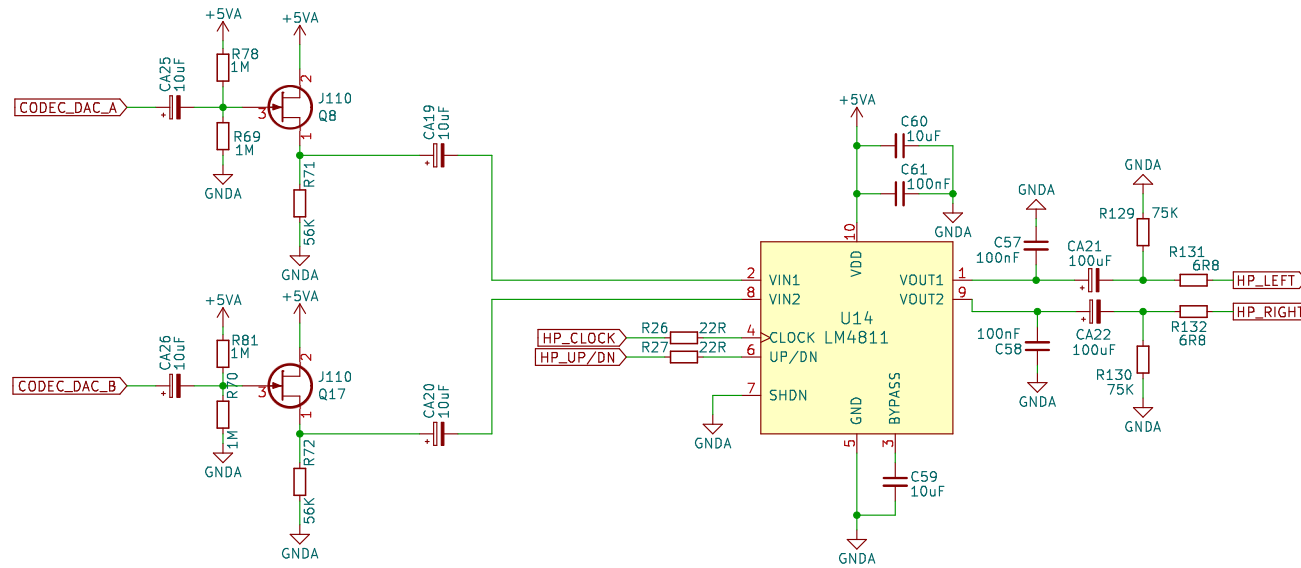
- All resistors named as RA* must have at least 1% tolerance
- All non-polarized capacitors named as CA* must use NP0 Temp. Coef.
- All other non-polarized capacitors should use X7R Temp. Coef.
- Decoupling caps must be placed as close as possible of the IC power pins
- IC's such as the codec, ADC, DAC, headphone amplifier, EEPROM should not be changed to maintain software compatibility

3V3 for codec

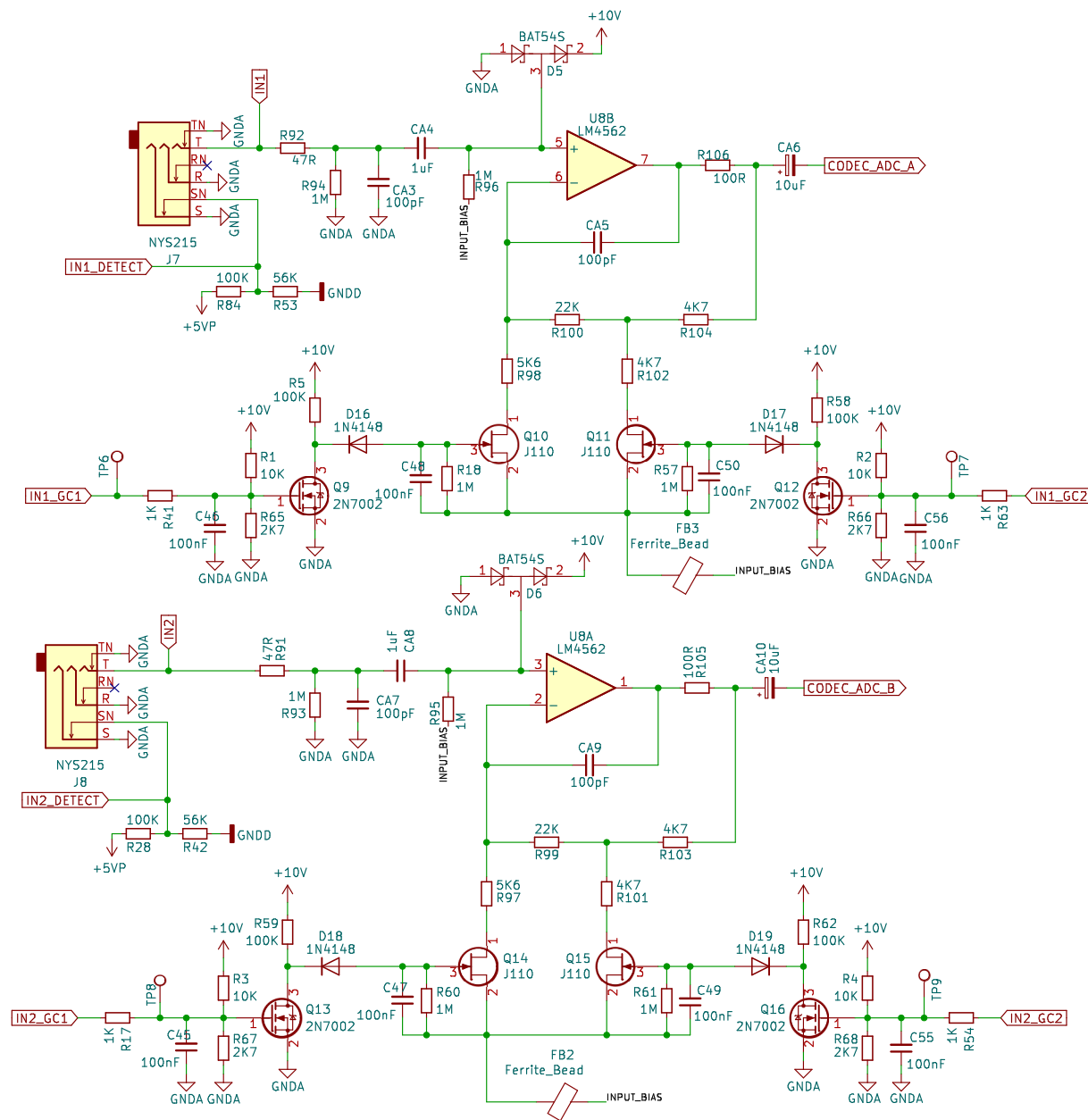


Placed close to their respective pin





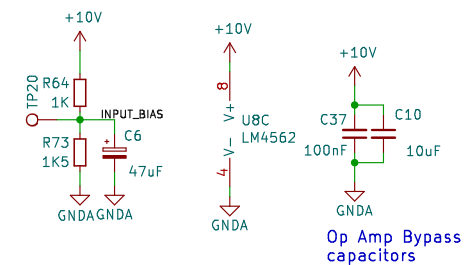
HP circuit values designed for Dual 70mW @ $R_L=32\Omega$



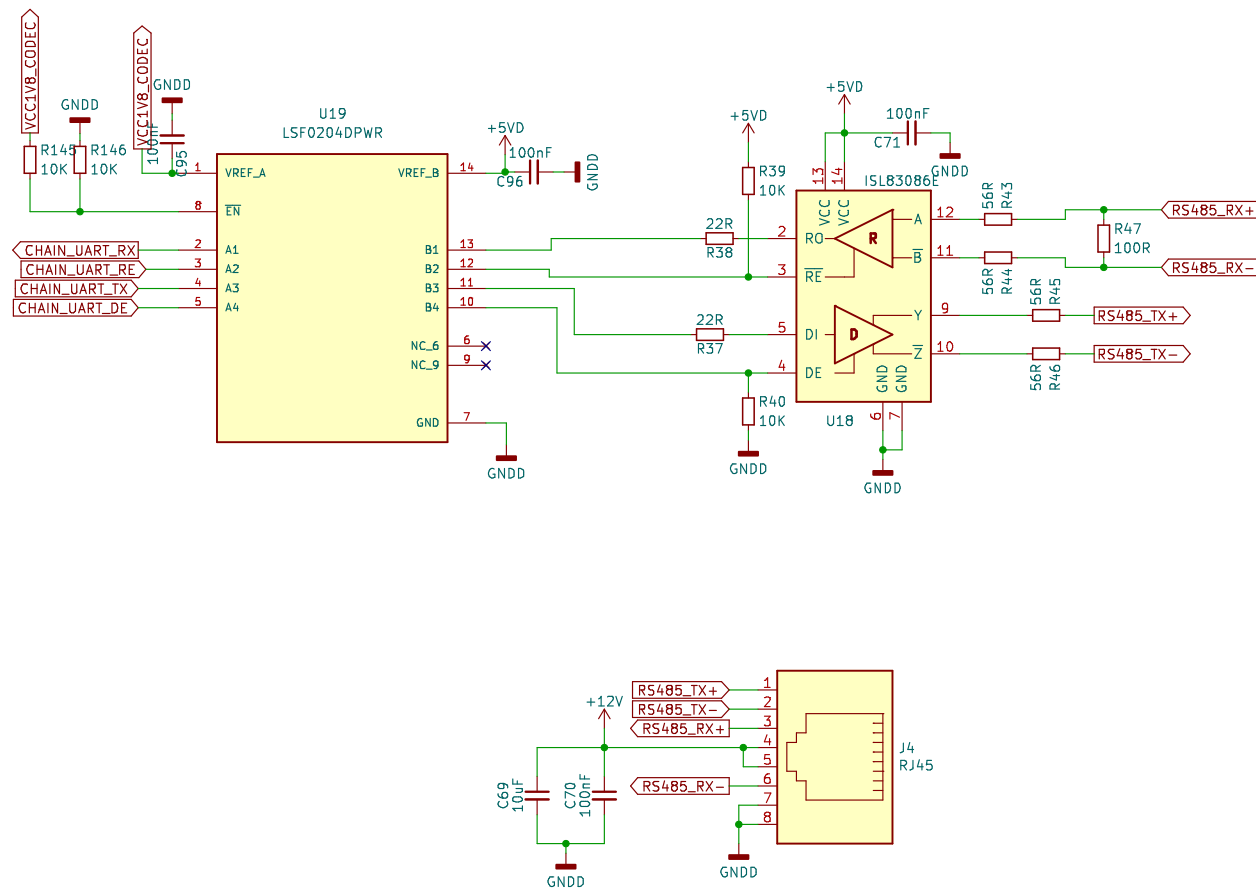
GPIO controllable gain spec:

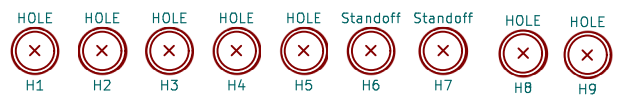
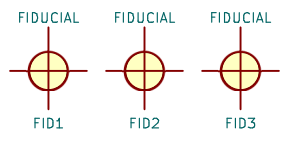
GC2, GC1	GAIN (dB)	The gain calculation includes the RDSon value J110: RDSon = 18R
1, 1	0.0	
1, 0	6.0	
0, 1	15.0	
0, 0	20.4	

The CODEC only presents optimal dynamic range and THD+N for PGA setting: -12dB to +6dB.



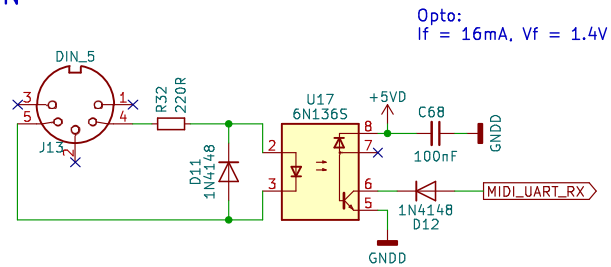
These R can not both be placed!
Different models have EN pin pol switched



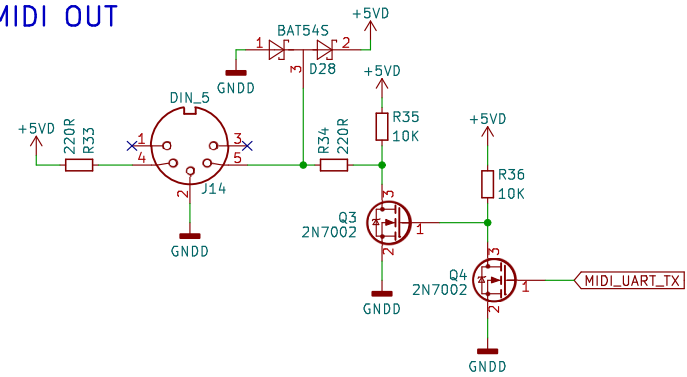


IMG1
Logo

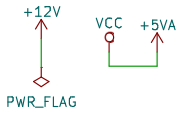
MIDI IN



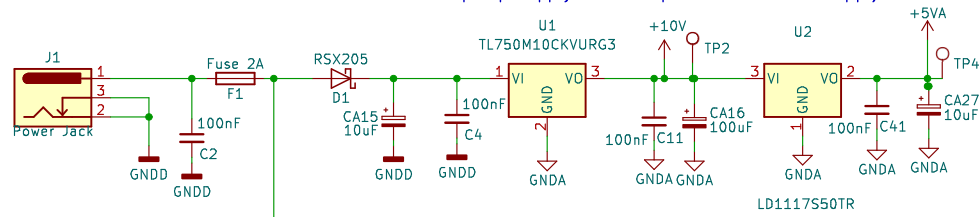
MIDI OUT



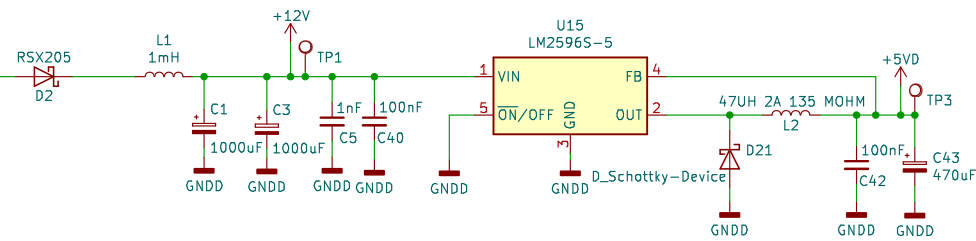
Analog



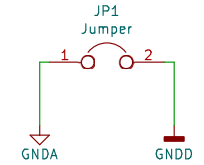
10V for audio opamp supply. 5V as Input Bias + codec supply

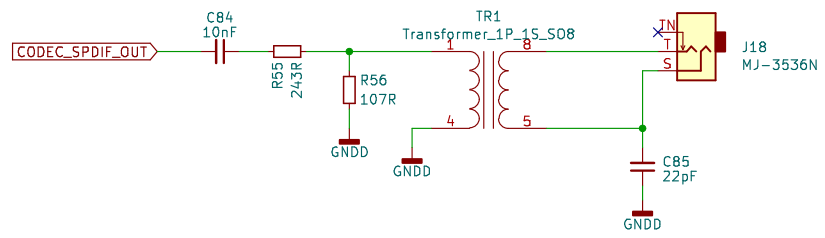


Digital

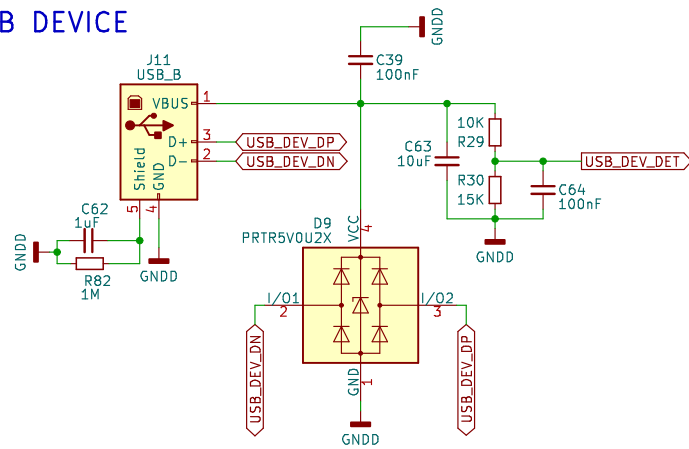


Only to be merged at codec ground





USB DEVICE



USB HOST

